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## ORIGINAL ARTICLES.

### INDUCTION IN THERAPEUTICS.

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OUR present knowledge concerning the nature of disease, and the action of drugs—the two premises of the syllogism, the treatment of disease—is so limited as to exclude therapeutics from among the exact sciences; but by no other means than the most carefully conducted investigations and experiments in all that pertains to these two premises, can we hope to establish the healing art upon the scientific recognition, that the importance of its relation to human society demands.

That such a position belongs to therapeutics cannot be doubted; for it is not consonant with the known laws of natural phenomena, with the absolutely certain relation of cause and effect, that is universal within the realm of our consciousness, to place this part of nature outside of the possibility of exact knowledge, and to forever relegate it to the domain of empiricism. The position of medicine to-day is little in advance of this. A vast array, of for the most part, untrustworthy data concerning the effects of drugs in health and in disease; the substitution of theories, where only the most carefully analyzed facts should be admitted; the advancing of hypotheses that are an insult to man's reasoning faculty, and can have their origin only in a most ungoverned use of the imagination, to explain a relation between cause and effect; of such material does our knowledge of drugs consist: what wonder then, that any attempt to bring this heterogeneous mass into order, or within the realm of natural law, should fail—and failure must be recorded of much of our treatment, if we are honest. Why is it, that therapeutics to-day, as it always has been, is in the rear ranks of science? Not, I believe, because we lack theories of the application of drugs—of these we have more than we can use; nor because we have not yet discovered a therapeutic law, or laws, but principally because of the inaccuracy of our drug knowledge. The first thing to be done before we can approach a scientific use of drugs, is to purge our materia medica of this accumulation of falsehoods; to distinguish between the drug effect, and the combined action of drug and disease, and to remove all those fanciful provings, that having been made with nothing, can produce nothing.

Therapeutics needs a materia medica that is based upon the pathology of drug action. We have enough meaningless and contradictory symptoms, in many cases nothing more than a record of the so-called "provers'" fancy; we must know the action of the drug, where it expends its force, and how. About this there should be no room for doubt, and if the proving of a drug is properly conducted, and the sources of error carefully eliminated, there will be no doubt.

Without intending to advance any new theory of the treatment of disease, it is my present purpose to endeavor to point out the necessity of bringing together all the known laws of the action and application of drugs, before we can justly claim the possession of a complete knowledge of therapeutics, or rightly insist that the treatment of disease is capable of being reduced to scientific methods.

Upon the threshold, we are met with the question, what is disease? This it will be well to briefly consider before proceeding further.

Reduced to its simplest form, the organic body is a mass of protoplasm or living matter; and one of the earliest complications of this primitive simplicity; one of the first evidences of the development of the heterogeneous out of the homogeneous, is the result of differentiation of function, and shows itself in internal,aggregation, in the development of centres of functional activity—nuclei, and in the formation of a protective wall of dead or formed material. Here begins our knowledge of constructive force in protoplasm; we have therefore to inquire the source of this activity.

All objects are either self-active, or are passive, and acted upon by the eternal limit of their existence —their environment.

Between environment or space, without which no true conception of matter can be formed, and the object so limited, there must exist certain mutual relations that operate in the direction of equilibration, but which, as an ultimate of the long continued balancing of forces, tend to the breaking up of the object, and the extension of space. It will be understood that the latter expression is figurative, for substance cannot be destroyed—it can, however, be rearranged, which may involve the separation of its component parts. In this sense the expression is here used.

All the abnormal changes that come within our experience result from a more or less permanent arrest of the process of equilibration between the particular object, and its particular environment, for the order of nature; as we have seen, being largely made up of the balancing of the two opposing forces, object and environment, it follows, as this is our only cognizance of nature, that the disorder of nature has its origin, on one hand, in an excessive activity of one force, and on the other hand, in a diminished activity of the opposing force. The tendency towards equilibration, which when accomplished represents organic dissolution, is thereby interrupted, and the natural progress towards the rearrangement of matter arrested.

By applying these general remarks to the particular subject under consideration—the nature of disease—we are brought to the conclusion that pathology is not removed from the laws of physiology, and that these two classes of vital phenomena—one opposed to the most perfect functional activity, the other synonymous with the highest functional possibilities—differ fundamentally in the degree of the activity, that makes any change possible. Physiology exists before pathology, health before disease; and we must discard the traditional belief, that one is a specific something superadded to the other; the forces of disease are not distinct from, and engrafted upon, the forces of health, they are identical; but in one set of phenomena the direction of vital force is perverted and its effects multiplied as it is brought into contact with other forms of activity, hence the different phases of disease; in the other, the harmony of nature is not interfered with.

This conception of disease deals only with effects, and therefore robs pathology of the exactness that a science demands; but it may be questioned whether our experience can penetrate as deeply into the *causa sui* as our intellect carries us; whether our intellectual conceptions will not always hold out an alluring field for discovery, which will ever recede from our experience when apparently within our grasp; whether in this very fact, that there is an unattainable, we do not find the motive of our lives, the impetus to progress.

The action of drugs upon the animal organism is one of the most complicated questions with which experimental science has to deal; but it is evident that scientific therapeutics, the positive application of the known effects of drugs to the treatment of disease, can be based upon nothing less than the general principles that underlie the various methods and degrees of drug activity.

These general principles or laws, by which the actions of drugs are governed, can only be ascertained by a careful analysis of the particular phenomena, that collectively constitute our sole knowledge of this department of cause and effect. The analysis will be mainly in the direction of separating the effect of drugs upon the healthy organism from their effect upon the diseased organism, the importance of which, to obtain a trustworthy guide to the use of drugs, is one of the noblest monuments to Hahnemann's memory, and one of the greatest advances in modern therapeutics. Had Hahnemann remained true to his early demonstrations, and not been lead into errors of proving and recording medicines, there can be no doubt that physic to-day would be in a more advanced state than we find it. For so strong is the spirit of "hero worship"—a spirit entirely opposed to progress, because, as time necessarily enters into its concept, the past is held as a guide for the present, and the future, and also because it mistakes the form for the substance; so powerful is this disposition to the indiscriminate praise of men, that there are always those who would retard progress by looking backwards, and who, without thought, accept as their creed, the formulated belief of the past. Such men retard science; they will neither advance themselves nor suffer others to advance. Our only use for the past, with its great men and great achievements, is as a foundation upon which to build the present. The work of each day, of each hour, can in like measure occupy no other day nor hour; knowledge gained in science is final only until a broader knowledge is able to point out the errors of the earlier belief, and the true scientist is free to change his opinion daily—aye, hourly, if need be—to keep himself abreast with the ever active force of evolution that surrounds him on all sides. The day has passed when an assertion, because made by Hahnemann—and no one will deny his claim to greatness—must be accepted without question. It is an age for questioning, and one in which all things must be tested by the truth that they contain. We have had enough of "the master says thus and so." The master may be entirely wrong, seen through the accumulated knowledge of years, and is certain in many particulars to be much behind the present.

The proving of drugs upon the healthy, and the therapeutic law of similars, undoubtedly mark a great advance toward scientific therapeutics; but inasmuch as there are other laws of the action of drugs in disease, this one cannot be accepted as the only law; and while it is at present the most certain, scientific, and widely applicable guide to the use of drugs, reasoning from analogy, we are not justified in asserting that it is the final law, or that future investigations and requirements will not discover broader and more universal laws that shall embrace all those that now serve as our guides in the treatment of disease.

It is not possible in this place to analyze to any extent the various phases and methods of drug action, or the different laws that govern their use in disease; nor does the object of this paper, to enter a plea for the use of the inductive method in therapeutics, and to point out the breadth and diversity of our laws for the use of drugs, render such a treatment of the subject essential to its clear understanding. It is quite sufficient to begin with the fact that certain substances with definite construction, which we call drugs, when applied to the animal organism, bring about changes in the vital operations of that organism, the differences between which changes are recognized as chiefly dependant: *first*, upon the individuality of the drug, and *second*, upon the quantity of the drug administered, and the rapidity with which the organism is brought under its influence. For very obvious reasons, the characteristics of the individual prover cannot be recognized as exerting any influence upon the action of the drug. Such a side issue is interesting as a study, but cannot be taken cognizance of in the indications for the use of drugs. Our provings must be made upon the healthy organism, and I think we are justified in assuming that, given a standard of health—not difficult to formulate—the results of bringing drug force to act upon vital force will be uniform and capable of prediction when once established.

Neither the social law, nor the unwritten ethical law permit such extensive experiments to be made upon men as are necessary to discover the true action of drugs—their pathology, the actual lesions they cause, and the manner in which they interfere with all life. But such effects, however slight, must precede the symptoms by which we know of their existence, and must stand in the relation of cause to those symptoms. For I believe it capable of future, if not of present, demonstration that a lesion to be measured by pathology is the essential factor in our knowledge of drug action, as it is in our knowledge of deranged function. The pathology of drugs is the only trustworthy basis upon which to build a system of the treatment of disease, and this pathology we must learn at the expense of the lower animals. No pathogenesis of a drug can be complete without including a record of its action upon tissues; and while in practice it is neither necessary nor advisable to administer the drug in quantities sufficiently large to excite the full pathological action—it having been demonstrated that the diseased organism is more susceptible of drugs than the healthy organism—this tissue action is probably always excited when a drug is exhibited, and should form a part of every scientific prescription; should form the basis of our drug classification, as it does of our classification of disease.

It is thus seen that a knowledge of drugs can only be reached by a process of inductive reasoning. The process in this case is necessarily impure, because not all the particulars with which the subject deals are known, but out of these particulars, the effects of drugs—and let it be remembered that here we are dealing with facts, not theories, if we pursue our investigations in the direction of positive knowledge, the dissecting room, the microscope, and chemical analysis—we arrive at the generals of our subject, and are enabled to acquire a comprehensive picture of the drug, and to formulate the direction and laws of its action, thus establishing one part of therapeutics upon a scientific basis.

In regard to materia medica, and its application to the cure of disease—therapeutics—as scientists we have to deal with facts only. Whatever on the one side may be the force that shows itself in vitality, or that makes the absence of vitality possible; or, on the other side, whatever may be the force that makes a drug active and capable of changing the healthy and harmonious working of the organism, does not concern us in this place, because having no present means to investigate them they elude our observation, and therefore cannot form any part of our system. This position, let me hasten to say, does not prevent us from speculating upon the nature of the *causa sui*, or from entertaining any theory of force that our training and habits of thought may lead us to adopt. I simply assert that all that belongs to the realm of abstract thought, must receive its demonstration outside of experience, and therefore cannot form a part of scientific knowledge. We know only what our experience has taught us, not even what another's asserts to be true; we can feel only those things that our senses prove the existence of; we can see nothing beyond the range of our vision, unaided by our imagination. All that is transcendental, while serving to lift us out of the purely material existence, and permitting us to live in the higher regions of mind, and to touch the spiritual part of our entity, greatly assists us to attain a knowledge of ethical and moral laws, and to perfect ourselves, and hence society, in what constitutes the pure and unselfish life; but its very principle is opposed to scientific belief, and its introduction into therapeutics has done much toward retarding the progress of the healing art.

We have elsewhere seen that the simplest form of an organism is a mass of protoplasm, which, because of the impossibility of carrying investigation further backward, we are justified in regarding as life or activity. This state, which is our only knowledge of life, it needs no demonstration to prove, must precede death, for a cause must precede its effect, and "self-cause, or eternal energy, is the ultimate pre-

supposition of all things and events." To this protoplasmic mass is in time superadded a natural result of activity, equilibration, and this is death. We therefore find, that practically co-existent but philosophically separated by a space of time, the elements upon which all actions must be exerted, are either active or passive, and composed either of formed or unformed material. Here we find two elemental divisions upon which to base the action of drugs, their effect upon living matter and their effect upon dead matter, for, as we have seen, the animal organism is reduceable to these two states. One may be considered a dynamical action, in which the applied force is brought into relation with an active force, and shows its activity by changing the normal and continuous progress of the latter toward equilibration; the other may be regarded as a statical action, in which such attractions exist between the drug or applied force, and the (until then) inactive formed material, as result in a change of their mutual relations, and a subsequent rearrangement of their constituents.

I can find no good reason for excluding either of these drug actions from therapeutics. But while according to inductive reasoning, this necessarily follows, at the same time it cannot be doubted that the most important and general curative effects belong to the dynamic action of drugs, for we have only to remember that the vital phenomena that constitute health belong to the active or unformed elements of the organism, to show that the force to meet the derangements of health must be applied to that part of the organism in which healthy actions take place. Hence the greater curative effect of the dynamic action of drugs.

But though the action of drugs must be expended either on formed or unformed material—possibly in some instances one drug may exert a dual action—the same drug produces different effects according to the quantity of it administered. The honor of this discovery belongs to Hahnemann, and is one of the most important additions to the scientific use of drugs. It establishes two propositions: *first*, that the diseased organism can be affected by small quantities of a given substance, quantities not sufficient to produce a pathological action in the healthy organism, or indeed any action at all; and *second*, the mechanical diffusibility of matter, which involves still another truth, that each particle of matter contains the essential properties of the whole mass, and requires only to be brought in contact with the deranged morphology in sufficient quantities—assuming that the drug has been properly selected to meet the individual case—to restore the natural progress toward equilibration.

As a result of the recognized utility of the minimum dose in disease we have the dynamization of drugs.

To the mind that has been trained to judicious analysis, it is difficult to recognize in the theory of the dynamization of drugs anything more than an illustration of the errors into which overzeal will lead, and blind adherence to dogma will propagate. There can be no doubt that the conception of the theory was a fallacy, and that it forms no part of the great law of similars, and adds nothing to it. Let us pause here for a moment, to if possible, increase our understanding of this question, concerning which there is at present such a variety of opinions. There is a distinction to be made between the attenuation of drugs and the dynamization of drugs, for one is the division of a substance, its dilution if the term is preferred, up to the point of divisibility. It is a purely mechanical process, by which the molecules of the substance are separated from each other and suspended in some medium that does not impair the integrity of the particles so separated. It is a process by which the strength of the substance operated upon is reduced, in proportion to the degree to which the division is carried, for new demonstration is unnecessary to prove the physical law, that while the peculiar properties of a substance are contained equally in the separate molecules of the mass, the strength of a substance increases with the number of similar forces of which that substance may be composed. Attenuation as here defined cannot be carried beyond certain ascertainable limits; and while it is probable that the practically justifiable limits are frequently passed, and foreign influences attributed to drug influences, to the theory of the attenuation of drugs, as a convenient and frequently necessary method of preparing them for use, there can be no well grounded objection. It is the direct outgrowth of the fact already mentioned, that the deranged organism is more susceptible of drug action than the healthy organism, and is explicable upon well known physical laws.

The dynamization of drugs is quite a different matter. The theory upon which the practice is based deals with questions of which we have no exact knowledge, and no present means for obtaining knowledge. It asks us to believe that in addition to the possibility of separating the molecules of a given substance from each other, we can destroy the molecule and liberate its active principle, which is then discharged into some inert substance in a free, highly active state, the activity increasing as the original substance decreases.

This subject may be examined from two standpoints: *first*, that of the properties of matter; *second*, that of the effects of matter, as recorded in our

provings of drugs upon the healthy, and their use in disease.

It would be folly to maintain that our present conception of matter embodies a complete exposition of its properties and laws; but it is reasonable to assume that fundamentally that conception is a correct one, and is imperfect mainly in the direction of the arbitrary dividing line that science is obliged to place between matter and force—between those things that our senses recognize and can examine, and those things that we feel but have no means of analyzing, or of tracing to their cause.

Our present inquiry is with the divisibility of matter, and the relation between the integrity of the smallest compound particle of matter with which we deal, and the retention of the characteristic properties of that particle, for it is evident that in this exists the essence of the theory of the dynamization of drugs.

It is of course possible, I think we can scarcely say probable, that what is now the smallest recognizable compound particle of matter, the molecule, may in future be further subdivided and still preserve its characteristic composition; but to make this possible the present atomic theory, as descriptive of the building up and holding together of the universe, must be changed. With the possibilities of scientific demonstration we are, however, in this place little concerned—our carving must be done with the tools that are in our hands, not with the tools that coming generations may substitute for those that we use; our theories to be practically useful must be based upon ascertained laws, and from them every element of pure speculation eliminated.

From the definiteness with which in nature certain forms are associated with certain forces, the conclusion is reached that the relation between the object and its activity is not an accidental or unnecessary one. If we regard force—of which the only demonstration is its activity, this demonstration involving an acknowledgment of its existence—as something apart and separated from matter, but residing in it, we cannot escape the conclusion: *a*, that certain phases of this active force require peculiar structures as vehicles through which to act; and *b*, that without such vehicles there can be no activity in the material world.

Upon these premises, that matter is essential to the activity of the forces with which we deal, and that the matter and the force must be mutually adapted, we reach the induction that, with the disintegration of matter—it will be remembered that we are here dealing with molecules—the peculiar force which made that matter active is no longer capable of activity, and must remain inert until it meets with some other force with which it has an affinity, or is again embodied in its peculiar substance.

Let us now, in the light of these conclusions, see how the question of the dynamization of drugs stands.

As before said, the dynamization of drugs has to do with the breaking up of the molecule, with the destruction of the integrity of matter; how, therefore, can we escape the belief, reasoning from the present position of science, that with the disappearance of matter there is also cessation of activity? What authority have we for asserting that when a peculiar form, that constantly appears associated with a peculiar activity and is never seen without that association, is destroyed, the activity will continue or increase by the decimal or centesimal scales? Truly, those who make a pretense of following nature, and being guided by nature's laws, should reason more closely, and not in their dogmas, ignore the primary laws of the divisibility of matter, and what we know of matter and force.

With the disintegration of matter, the atoms of which the molecule is composed go to form other combinations that are possibly active, but not active in the same kind as when composing the primary molecule. Any activity that follows such a mechanical separation may be looked upon as a derived action, and can have no closer relation to the original matter than hydrogen bears to water after its molecular state is destroyed. We hence reach the conclusion that if dynamized drugs possess characteristic actions, such actions do not belong to the drug itself, and can in no way be associated with the force which it contains. It proceeds from a rearrangement of elements, to the number of which the drug has contributed its atoms, and again illustrates the fact that force, to be brought within our consciousness, must be associated with matter.

Now, assuming the possibility of such a development of activity—an assumption that rests upon no other than a hypothetical base, for there is neither proof that the molecule is destroyed by succussion, or that if destroyed any active force remains—the uncertainty with which new combinations of matter would be made by the processes employed for dynamization, robs the system of scientific accuracy. It is, for example, impossible to predict, granting that the molecule can be reduced to its atomic constituents, what new combinations would be formed by *mercuric chloride* ($HgCl_2$). Who can say what would become of the Hg, or where the $Cl_2$ would go to?

From what we have already advanced, we trust in all fairness, and without the slightest disrespect to the opinion of those who accept dynamization, we are forced to the conclusion that the dynamization of drugs finds no place in a scientific system of med-

icine, which can deal only with facts that are susceptible of proof, and can be brought into conformity with the known laws of matter and force.

The *second* standpoint from which we will examine the theory of the dynamization of drugs is perhaps one of the most illusive with which science has to deal—the record of subjective observations. So powerful is the imagination, so susceptible is the physical nature to psychical influences, and so easy do we find it to believe and feel what we wish to believe and feel, that the data upon which such observations are based are always liable to be questioned.

The experience of every physician will furnish numerous instances of the beneficial effects from administering a placebo, and the great improvement that frequently follows an expression of confidence on the part of the physician, in the ultimately happy issue of the disease. We can also all probably recall cases in which a mistake in the remedy selected has been followed by an unexpectedly rapid cure. Can we explain such professional experiences upon any other ground than the self-limitation of many diseases?

It is unquestionably true that the forces of nature as active in the human organism, are quite sufficient in the majority of diseases to restore a healthy action, unaided by any external forces; and I think there is reason to believe that not only is this true, but that there is a constant tendency within the vital forces, to the establishment of a natural process of equilibration. Are not many of the really wonderful cures made with highly dynamized drugs, illustrations of the *vis medicatrix naturæ?* Have we not, in all cases into which any reasonable doubt enters concerning the action of the drug administered, or the natural course of the malady treated, to ask ourselves the question, Would not health often have been restored quite as speedily without the aid of drugs, as after exhibition? I think every conscientious physician must so examine his practice, and I find that by this test there are comparatively few cases in which I can satisfy myself that the restoration of health is to be attributed to drug action. Many patients, even though suffering acutely, do not need drugs for their relief, they require the *ism* or *pathy* of the particular physician in whom they place confidence, and so long as they can have this influence, or force, it frequently matters little what medicine he administers, or indeed if he give any medicine. A few words of encouragement, a change of diet, and general attention to hygiene, suffice to restore health. Of course, I do not here include a positive pathological lesion, or surgical diseases, but refer to that large class of purely functional and nervous disorders, that absorb so much of the general practitioner's attention.

Thus far we have spoken only of the use of dynamized drugs for the cure of diseases, but it will be remembered that the indications for such an application of medicines are gained from provings upon the healthy. Having regard to what has been said concerning the nature of the dynamized drug, we may well inquire, With what are such provings made? The vast array of heterogeneous symptoms, thrown together without order, and with no comprehensible sequence, the triviality of the record, and the absence of anything characteristic between several "provings," demand for their acceptance as true records of the effect of drugs, a degree of credulity that does not belong to a scientific mind. It is difficult after a judicious and careful analysis of the provings made by highly dynamized drugs, to recognize in them anything more valuable or trustworthy than a record of the prover's imagination, or the almost innumerable symptoms that any healthy person will discover in himself when his thoughts are concentrated upon his sensations, and when he feels under the necessity of "making a proving"—the latter is an important factor in the acquirement of this branch of knowledge. It seems to me that in proportion as we discard these fanciful provings from materia medica, and regard them as illustrations of certain very common mental phases; in the degree to which we look upon the theory of dynamization and the use of dynamized drugs, as instruments in the *psychological* treatment of disease, we will assist in placing therapeutics upon a scientific basis.

After this long, but I trust pardonable digression, let us return to the principal subject of this paper—induction in therapeutics.

We have seen that while any particle of the original substance can be detected in the medium in which it is suspended, that minute particle or subdivision will produce its characteristic effects, and that the active force can be recognized by these effects. That this effect is weaker in direct ratio to the degree of attenuation follows necessarily from what we know of matter, but that at the same time the effect of a drug is rendered more extensive and wider in its field of action, by attenuation, there seems reason for believing, both from analogy and from experience.

We take Phosphorus for an illustration. In large doses it acts as a caustic irritant to the stomach, causing inflammation of that organ and of the bowels. In smaller doses it acts as a most powerful excitant of the nervous system, not only stimulating functions, but supplying food. In still smaller and repeated doses, phosphorus effects most powerfully the nutritive sphere, causing changes in the blood, disintegration of the nervous centres, congestion of

the lungs, and fatty degeneration of various tissues of the body.

Why, it may be asked, should we take advantage of only one class of phenomena, and exclude all others from therapeutics, or why should we allow our patients to profit from only a single action? We must in this connection remember that the causes and character of disease differ greatly, and according to these causes and dissimilarities the principles of our treatment should be modified. If the nervous system is exhausted from overwork, why should we not give it food with as much justice as, under similar conditions, we nourish the muscles or bones? Certainly no curative action can be brought about until the proper relations between waste and repair are established. When the liver is inactive, and in consequence there follows the vast array of symptoms classed under "biliousness," will not our specific treatment of the case, which is directed to removing the cause of the sluggish organ, be greatly facilitated by first causing a proper discharge of the accumulated bile? Or again, if the case is one of uræmia, do we not increase our chances of success in treatment, by, either as a preliminary measure or coincidently with the specific medication, causing a renewed action of the kidneys, and increasing the vicarious activity of the mucous membrane and skin, by means of the direct action of drugs, in contradistinction to their curative action? Or still again, the case is one of a slowly granulating surface, a condition that in surgery we know to be associated with the multiplication of cells, rather than their perfection, and one that requires some agent that will arrest this proliferation, and afford the cells an opportunity to enter into the permanent constituents of the body, shall we not here use a local stimulant? shall we not cauterize? I think so; and still we do not thus make use of that form of the drug force, which, entering into the tissues of the deranged organ, there supplies the kind and degree of force, the absence of which disturbs the natural course toward equilibration manifested in derangement of function.

Let us inquire into the causes of these different degrees and forms of activity that characterize the action of a drug.

We have seen that drugs act upon living matter and upon dead matter. In the case of the former there is a reaction of the vital forces against the drug force—for the system is intolerant of any foreign matter and seeks to eject it—therefore the particular region acted upon soon recovers from the effect of the drug and reacts from its influence. But if the quantity of the drug administered is so large as to arrest the activity of the particular part and reduce it to the position of being acted upon, it is plain that in the *first* place, reaction, in the sense of an eliminating force, does not occur, and in the *second* place, that the effect of the drug is expended upon a much more limited area. If, on the other hand, the drug is administered in small quantities, and the organism gradually brought under its influence, these quantities being in a condition of mechanical separation and suspension in a readily diffusable medium, that favors their conveyance to all parts of an organ, tissues and parts are reached for which the drug has an affinity, and specific effects result. But do not the effects of the large doses belong as truly to the pathogeneses of the drug as the effects of the small doses, and should not one be made use of in therapeutics as well as the other?

Having acquired a knowledge of the action of drugs, however perfect, and it will not be denied that at present this is very imperfect and in a large measure based upon theory, a still more difficult task is set for the physician, that of applying this knowledge to the cure of disease; but here, as elsewhere we will I think, find that the subject acquires breadth as we proceed without bias upon its investigation; that our principle of induction, while leading from many particulars to the one general, of scientific therapeutics, will also furnish evidence that these particulars are arranged into groups, which together constitute the general proposition. Upon the above basis of reasoning, how can we escape the conclusion that, for example, the narcotic action, the stimulating action, and the truly curative action of opium should occupy their respective positions in rational therapeutics?

The value of the law of similars which Hahnemann formulated, and by virtue of great perseverance and energy established upon a firm basis as a law for the application of drugs to disease, lies in the fact that it was an advance upon the uncertain methods then in vogue, for it recognized the curative action of drugs, until his time but imperfectly acknowledged, and also that it added one more weapon to our armament for the cure of disease; but in this day of progress and vast research I do not find it consistent to believe that the law of similars, while our principal, forms our exclusive guide for the use of drugs, or that other laws for their administration in deranged vitality, may not yet be discovered.

## ABORTION.*

By C. L. Bagg, M. D., New York.

The subject which I bring up for discussion tonight is one of great interest and is entitled to our special attention, for these two reasons: First, it is of such frequent occurrence in general practice; and

* Read before the Clinical Club, December 5, 1885.

secondly, it is apt, under certain circumstances, to involve the subject in more or less danger. I speak of abortion.

By the term abortion is understood the premature expulsion of the fœtus from the womb, prior to the seventh month, after which time it is regarded as viable.

Physicians sometimes make divisions of the period. Thus, if the accident occur before the twentieth day, it is called ovular abortion; if prior to the third month, embryonic abortion; and from that time to the seventh month, fœtal abortion. Among the laity the word abortion is used to signify those cases in which medicinal or mechanical means have been brought to bear and have resulted in the death and expulsion of the fœtus, the term miscarriage being applied to the event when resulting from natural causes.

I shall use the term abortion in its broader sense, including both natural and other causes, when the fœtus has been expelled from the uterus previous to the seventh month, as after that period the child is viable, and if then thrown off the occurrence is called premature labor.

According to Madame La Chapelle, it is shown by the statistics of the Paris Maternité that abortion is most likely to occur during the sixth month of gestation. This view is hardly borne out by our experience outside, since we generally regard the early months as fraught with the greatest danger. Undoubtedly in such an institution as the above-mentioned, where women are received and kept until after parturition, they would not seek admission until after the early dangers had passed, so that possibly in their case the sixth month may stand as the foremost in point of danger.

During the early months the fœtal attachments are less pronounced, and slight influences brought to bear on the womb during that period might, under certain circumstances, cause contraction and expulsion of its contents. In my experience, the latter parts of the second and third months are the epochs when natural abortions most frequently occur. Probably, however, many cases of delayed menstuation coming on suddenly, with pain, etc., are cases of ovular abortion which pass by unnoticed.

Primiparæ suffer as frequently as multiparæ, and, according to some writers, even more frequently, owing to the fact that the uterus, rebelling against its new growth and the changes connected therewith, is more liable to contractions and consequent expulsion of its contents.

Exceedingly nervous as well as plethoric constitutions tend towards this trouble.

The causes which predispose to abortion are manifold, but may be classified under four general heads: First, constitutional or predisposing; second, local or organic; third, reflex or exciting, both centric and excentric; and fourth, medicinal means.

The plethoric constitution, by its general full blood-pressure, causes a tendency in the growing fœtal membranes to congestion, and at times extravasation of blood or apoplexy. The congestion alone may be sufficient to cause a sensitive uterus to abort, whether it be near the menstrual period or not. All are aware when there is a tendency to abortion; the danger increases as the menstrual period approaches, and fades away when that period has passed; and if the subject of this tendency can be carried past the early months, the danger, to a great degree, is over.

The zymotic diseases all tend to cause abortion, either from death of the fœtus or from the poison acting as an irritant upon the womb. Small-pox, if contracted during pregnancy, is, in the majority of instances, fatal to the fœtus. However, cases have been cited in which the child has passed through the whole disease before birth. The syphilitic woman is proverbial for her tendency to abort, especially if pregnancy comes on when the disease is in its early stages. I have known of several abortions from this cause, and have never seen a woman pass through the secondary stage of syphilis and carry her child to term.

Malposition of the membranes is also cited as a cause, such as placenta prævia, both centric and marginal. The former is the most frequent, and it is a blessing both to the patient and the doctor when it occurs under these circumstances. Morbid growths, as hydatids and moles, are also mentioned by some authors as causes of abortion.

Inflammation of the membranes may give rise to this misfortune, as also may fatty and calcareous degenerations. I was called a short time ago to attend a lady in a miscarriage at the third month. She had already aborted twice before, at short intervals, but on both occasions had got up soon, and suffered from the usual symptoms of sub-involution. The fœtus was expelled before I arrived, and the membranes soon followed. Upon the side of the placental decidua was a large yellow cyst, which, when opened, discharged two drachms of a thick yellow pus. The fœtus had evidently been dead for some time, as it was soft, and the epithelium came off when handled. The patient gave a history of having suffered for a time with pain and soreness in the womb, together with slight nausea and malaise. Occasionally severe cramps would come on, lasting only a short time, with a feeling as if the womb turned over. These symptoms came on in the night and lasted until the expulsion of the fœtus. I saw this summer a small, fleshy mole presenting the same pus cyst, following a miscarriage four months before, when the fœtal

forceps had been used to extract the membranes shortly after the fœtus had come away.

Emotional shocks, as grief, fear, anger, joy, etc., may act as causes; also the irritation arising from renal calculi, dysentery and severe hemorrhoids, especially if the tendency is strong and only awaits an exciting cause to bring it into action. It is well known to all how cathartics act in this direction, and how freely they are used by women who wish to rid themselves of the products of conception. Displacements, especially flexions of the womb, are common causes of abortion, owing to the congestion and consequent irritation thus induced. A womb bound down by repeated attacks of cellulitis is decidedly apt to rebel against the tearing up process and abort during the second or third month. If such a patient can only be carried through the danger, by rest and sedatives, to the full term, she has much to congratulate herself on. With proper rest, involution is very likely to be completely accomplished, and the former troubles may disappear.

Death of the fœtus is a sure cause, ordinarily, no matter by what means it is produced. And fortunate is this for the patient, since, should the dead burden remain there long, and air gain an entrance, decomposition and septicæmia would result. Shocks to the womb by various injections—especially hot and cold water, if used in rapid alternation—will also bring on abortion.

Some patients abort habitually, no matter what care is exercised to avoid it, while other women, no matter what they do, are obliged to go on. I have seen cases in which ergot, savin, gossypium, terebinth, powerful cathartics, etc., etc., had all been tried in vain, and the weary and disappointed women were obliged to give birth to full-term children. The customs and modes of living in our country have changed so that women to-day are not desirous of following in the footsteps of their grandmothers, and the large families once so common are no longer to be seen. The cause stands out broadly, and every physician sees the result.

Because a woman has aborted once it does not necessarily follow that she must do so again. Yet when once she has commenced, the tendency is there, and each of these accidents predisposes to another. Such a predisposition seems to be transmitted from mother to daughter, and we often see the liability to abort running in certain families.

We now come to the question, Is it ever justifiable to produce an abortion? It falls to the lot of every physician, at times, to have to decide this matter, in the light of his experience—often by no means an easy task.

By many it is looked upon as a great crime, except where necessary in order to prevent the death of the mother. By others, who contend that there is no fœtal life in the early months, it is regarded in a very different light, and the operation is no doubt frequently performed when both mother and child could have been saved. It is difficult to draw the line correctly between these two extremes. Many mothers owe their deaths to the destruction of the fœtus being too long postponed, while many unborn infants are destroyed needlessly.

From the time when the ovum is fertilized, and the mucous membrane of the womb swells to surround it, the embryonic being has started on its way to full development, and it is just as criminal to destroy it then as at four or five months.

By the laity a child is not supposed to move or have life before four or four and a half months. This is folly, as probably quite as early as the sixth week motion would be perceptible if the fœtus could be watched. I was called this summer to see a patient who had been suffering pain for some hours before my arrival. Upon passing my fingers to the os, I found it dilated to the size of a silver dollar, and issuing from it a large tense sac, into which with each pain a three months' fœtus would be pushed from above. On taking the cyst between the fingers and making gentle pressure, the fœtus could easily be felt to move, and squeezing the limbs would cause it to try and draw them from the clasp, as forcibly as if at full term. I left the patient, and upon my return the membranes were ruptured and the fœtus was expelled.

Under certain circumstances the physician is justified in killing the embryo and aiding in its expulsion, if need be. As, for instance, when, in cases of albuminuria, the disease is rapidly progressing and eclampsia is threatened; in obstinate vomiting, when the mother's life is endangered from exhaustion; or when pelvic deformity opposes an impassable obstacle to the child's exit.

I recall a case in point, where the patient of a friend of mine had vomited for weeks, almost constantly. Nothing could be retained, and a distressing and persistent cough and hiccough also existed. The lady was in bed, and so exhausted that attempts to move her resulted in syncope. Everything which money could do or medical counsel could suggest had been tried in vain. A specialist had advised painting the cervix with iodine, eating while sitting on ice-bags, etc., but to no purpose, and the woman seemed in a fair way to die. I suggested an abortion as the last resort, and this being consented to, I threw into the womb an ounce or two of hot water. The cough, hiccough and nausea almost instantly ceased, and in twenty hours the fœtus and membranes came away and the patient went on to a rapid recovery. Since

then she has conceived twice and gone through the whole period without any discomfort.

I have a patient who was rickety when young, and the pelvis fell in laterally, so diminishing the diameters that a full-grown child could not possibly get through. The only full-term child she ever carried had to be cut to pieces and then removed. I have produced abortion two or three times on this patient, and feel justified in so doing.

Many similar cases have come under my observation, in the practice of others as well as in my own, in which the doctor would have been as much at fault if he had not recognized the necessity for this operation and performed it as if he had left a broken bone without a splint or a navel-string without a ligature.

Having now decided that the production of abortion by the physician is occasionally justifiable, the next question is, How and when is it best to venture on it? I have many times regretted that this branch of midwifery has not been more fully entered upon and explained, instead of being hurriedly referred to as something too heinous to mention. It is a difficult matter to learn by experience, and the young practitioner has a heavy responsibility to shoulder as he gropes his way, partially in the dark, and feeling, perhaps, that the best and safest means have not been used.

The ways of causing an abortion are manifold, and both surgery and medicine are often called in. I should advise, in case an abortion is deemed necessary, that all medicinal agents like ergot, savin, gossypium, etc., be laid aside and that only tonics be used, if indicated, to build up the patient's strength. Should nature prefer the third month, or the latter part of the second, then that must be the best and safest period, as is amply confirmed by experience. After the third month flooding is to be apprehended, while early in the second the womb is not so likely to contract and expel the embryo, and decomposition may result.

The method of perforating the membranes and allowing the escape of the liquor amnii is quite sure, but is open to a serious objection, viz., that if the womb does not speedily contract the air which has entered will cause the dead fœtus to decompose before it can be expelled.

I have seen several cases where abortionists had performed the operation in this way, or women friends had been kind enough to undertake it, and the above-mentioned consequence had frightened them away, and the patients were left to themselves.

The results of the fœtus not coming away are usually chills, fever, lassitude, pains, and, if active measures are not resorted to, metritis, cellulitis and often death.

Sponge tents are frequently employed, and cause the abortion through irritation and consequent contractions. They are almost wholly devoid of danger if properly used, but are not at all reliable, and at best slow in their operation.

The method of Kiwisch is to shock the uterus by repeated and alternate injections of hot and cold water, the injections to be repeated every three or four hours until contractions are brought on. This exerts, also, a reflex action, and is spoken of by Dr. Gunning S. Bedford as a safe and sure means.

Galvanism is highly spoken of by some authorities, as it kills by shock and pains at once come on from this stimulation. One quite well-known abortionist uses suppositories of ergot or some other preparation, which are introduced and left in utero.

A simple and very sure method is to introduce into the uterus a soft elastic catheter and leave it until the organ, in attempting to expel it, forces out the embryo and uterine contents along with the foreign body.

A simple and very sure method, according to my experience, is the introduction into the womb, by means of a long uterine syringe, of a little hot water or oil. This is usually followed by a slight rigor and pain in thighs and head, which may pass away for a while or continue until the uterine contractions come on. This method does away with rupturing the membranes, and is less likely to allow air to rush in and produce decomposition.

The diagnosis of abortion is sometimes quite difficult, especially if the doctor comes after all the discharges have been thrown away. The pains may have ceased, and the doctor is assured that everything has come, and he goes away satisfied. Later, pains return and the fœtus is expelled, or in three or four days he is called again, only to discovor his mistake and find his patient laboring under fever and pain, with the fetid discharge indicating decomposition. The first thing to decide is whether the patient is really pregnant—whether the pains are due to threatening miscarriage or to other causes, and if to the former, whether the misfortune can be averted. A pregnant woman may suffer with many pains which simulate those of abortion but are external to the uterus, such as colics, neuralgia, rheumatism, etc. These pains are either constant or very irregular, and do not possess the squeezing, regular character of those of abortion, which usually increase in severity and centre towards the loins and hypogastric region. A hemorrhage may depend, not upon abortion, but upon polypi, carcinoma, changes in the vagina, etc., and its origin can only be ascertained by a careful examination. Menstruation has been mistaken for a

threatened miscarriage, especially when the patient has gone much over her time. Examination here will show no softening or dilatation of the cervix, as in approaching abortion, and we have not the regular and constantly increasing pains. A "show" does not necessarily indicate impending abortion, as some women have this discharge every three or four weeks throughout gestation, with no untoward results.

The prognosis depends upon the nature of the case, and each case will call for a different treatment. Doubtless 80 per cent. of aborting women would pass through the whole ordeal safely, even if not watched by a physician, if they would only observe rest. The natural abortion is by far the most favorable, as nature has usually been at work, and sometimes arranges matters so well that the fœtus drops away without the patient knowing it. Artificial measures, on the other hand, can only succeed by tearing open the healthy womb, killing the fœtus and giving the whole system a sudden and profound shock. These are the cases which most frequently prove fatal, either from inflammation of the womb or adjacent organs, or from septicæmia.

The treatment will vary with the case, and often the life of the woman will depend upon the prompt and judicious action of her physician. The first thing to be decided is, whether an abortion is really threatened; the second, whether the tendency can be checked or whether we must use all our means to hasten it along. Rest and quiet are the cardinal points to be observed, and they should be insisted on in every case, no matter how slight the symptoms. This, with light diet and such remedies as bell., cauloph., nux vom., ipecac, acon., puls, arnica, etc., may alone be sufficient to tide over a slight attack. Should the pains continue and grow more severe and regular, I regard opium and its preparations with great favor, giving a grain of the fluid extract every two hours until the pains cease, and then at longer intervals until the danger is passed. When the danger is at the menstrual epoch, the patient had better keep her bed for three or four days during every period until the critical fifth month has elapsed. Should the case be one in which an abortion is evidently impending and cannot be checked, we must aid nature. If the patient has had long continued pain and is thoroughly exhausted from loss of sleep, I would advise opium to ease the pain and cause rest, after which the pains will come on again with renewed vigor, and the labor will speedily terminate. If the pains are good and the patient is not feeling the shock, opium alone will retard the work by quieting the uterine contractions. Ergot comes in nicely, in half-drachm doses, where it is advisable to expedite matters, and the membranes, etc., are issuing from the uterus. My experience has been that ergot in large doses tends to cause clonic contractions of the womb and locks in the contents—especially if the fœtus has come away and the membranes are in the uterine cavity. The membranes should never be torn out of the cervix, even though they may protrude well into the vagina. While they remain in the os the latter is kept open, and they furnish a strong stimulus to contractions; also, the likelihood of the entire mass being expelled is much greater than if they were pulled away piecemeal. The expulsion of the membranes sometimes follows that of the fœtus in three or four hours, but usually the interval is much longer. I never worry so long as the discharges are inoffensive and there is no fever or abdominal tenderness. Should the discharges become fetid and fever arise, active measures must be resorted to and the uterine contents be removed, either by the finger, the curette or douching. Bell., bry., cauloph. and other remedies are here indicated, but I would prefer to rely on quinine and salicylic acid, with or without opium, and prompt removal of the cause of the hectic. If the case is mild and the septic poison of slight intensity, ars., bell., arn., puls., merc., may come in well when indicated. When a small piece of membrane is left in utero and cannot be removed, intra-uterine irrigation of carbolic acid solution may be practiced with good results; washing away, every three or four hours, all the broken-down and decayed matters, lessens the danger. Warm poultices over the abdomen, with vaginal injections of chamomile tea, are very grateful to the patient and relieve the pains very much. Flooding is easily controlled by the tampon and ergot, with astringents in aggravated cases.

## PHYSIOLOGICAL CENTRIPETALITY.

By E. P. Banning, Sr., M.D., New York.

### Third Article.

#### THERAPEUTIC SUGGESTIONS.

On this point, I briefly say that even if the cause be wholly *local* in the veins, to apply a vertical support to the viscera is strongly indicated, as it will aid the bandages and the constitutional treatment, by assisting the former to do their own work, by holding open the pelvic gate more widely for the blood to ascend, and thus tend to relieve the stress of the then hyperæsthetic tissues. Upon this point, such has been my experiences in my fifty years' practice, that were every principle in anatomy and logic to desert me, I should feel compelled to carry out this principle at the risk of the reputed loss of my rationality. In practice I have often seen cases of six and eight years' duration enter upon a surprisingly rapid and permanent improvement, with no

additional skill in the local or constitutional treatment. But the beauty of this elevation of visceral pressure is displayed especially in relieving the stress upon the extreme venous capillaries in cases of indolent and irritable ulcers of the leg, which have defied all treatment. I close on this point by a special allusion to two cases: one, a Pittsburgh matron, who barely escaped amputation, by her obstinacy. It was the sequel of a desperate case of milk-leg, of six years' standing, with a deep, fiery ulcer, surrounded by a black and cold condition of the skin nearly to the foot and knee. Diagnosing it to be a case of obstructed venous circulation, confining venous blood in the venous capillaries of that part, I constructed an efficient spring vertical support to the viscera, which gave instantaneous comfort, and which so effectually enfranchised the weak venous coats as to cause the blackness of the surrounding skin to pass off, and that incorrigible ulcer to show only a cicatrix at the end of six weeks. The principles which produced these results are such as apply with equal promise in varicose veins, œdema, etc., and in pregnancy; and also, in the case of cramps, pains in the back, ischuria, and threatened miscarriage, this vertical support acts like a charm, and often has not only brought comfort, but seemed to save life.

The wife of a clergyman in Charleston, S. C., of lymphatic temperament, had experienced eleven miscarriages consecutively, and was threatened with a twelfth. On the application of a comfortable support to the back and abdomen she became able to exercise in the air, bore a fine boy, and afterwards several more children.

### EFFECTS ON THE NERVES OF THE INFERIOR EXTREMITIES.

Before proceeding to delineate the tendency of a comparative centrifugal state of the viscera upon the nerves, it is requisite to refresh the mind as to some peculiarities of the nerve tissues. It should be remembered that they are neither flesh nor spirit—that they partake of the nature of both; that they are the medium of communication between the two; that they face toward earth and flesh and blood, and at the same time toward spirit and its operations; and that they are the half-way house, the dividing line, and at the same time the medium of connection, between the body and soul. In keeping with this, their tissue is not flesh—it is finer and more translucent, and shows under the microscope to be composed of an infinite number of tubes, and adapted to the transmission of substances incomparably more subtle than those of any other conducting organ. It follows, also, that their susceptibilities are infinitely higher, more complex and various than those of any other tissue, and that they are amenable to influences that are inappreciable to sense—to the mind, even; indeed, in many phenomena of which they are the factor, they are so mystical as to defy any attempts at rational investigation.

In keeping with this, they are the prime media or factors in many fearful demonstrations from an inappreciable outside origin, of which not the slightest perceptible footprint can be detected in these half-flesh, half-spirit tissues. Hence, speaking of the direct, indirect, proximate or remote influences of any outside thing on the nerve function, it will not always be requisite to show any adequate physical cause—as by the law of *association merely*, often at second or third hand from the cause, very serious phenomena may arise. From this point we can intelligently consider the question before us.

First, then, in the centripetal state (our starting point) not only does this, the compacting muscular girdle, compact everything to centre and upward, thereby protecting the tubular circulation of the legs from any obstructive action, but it also compels all the viscera not to exert any conceivable amount of traction upon the nerves which have left the spine *en route* to the feet and viscera, and more especially to prevent any approach to pressure upon them before they emerge from the body down the limbs; and by this visceral support these nerves are simply left to the enjoyment of their charter for a free, unimpeded and non-retarded passage to the feet, every other physical influence giving them a wide berth, as common carriers.

But, in the premises, the state is changed—not only is there not a widening and stimulating upward compaction, but at least a partial dragging state, which, according to its degree, must actually drag upon, straighten out the accommodating meanderings of the nerves, and at the same time correspondingly impinge against (if not actually compress) the nerve tubes. Here, then, we will get the two-fold effect of compression on the one hand and of dragging on the other.

In the first of these the *modus* is palpably obstructive of the subtle and impalpable fluid, and its effect will be in the ratio of the fineness of these nerve tubes, and the subtlety of the fluid, and not of the amount of gross pressure exerted, as in cases of the arteries, which have an engine to propel their contents. The effects may be simply upon the nerve and its functions, if uncomplicated with those conditions which compel those effects just considered, or mixed with them if they are.

First, then, in the simple condition we may expect more or less of a sense of lassitude of the limbs, tremulousness in the hips and knees, uncertainty of security in stepping, frequent tripping in ascending a flight of steps, inability to gather quickly on

stumbling, pricking and stitching pains in legs, easily deceived as to the requisite effort to raise the foot high enough, with fearfulness on being high, and afraid to step in the dark. Now, if these and analogous symptoms occur in connection with flabby limbs, cold and pale feet, pregnancy, milk-leg and varicose veins, we may conclude that they are all the result of muscular laxity and a generally unbraced and let-down condition of the viscera, in which case the nerves have been compelled to accept their full share of the consequences; that all the symptoms are on one stem, and that they are susceptible of cure or of valuable relief by such mechanical support as will act as a supplement to the centripetal action of the muscles, which causes the visceral orbs to take their ordained and relative position and bearing; and it needs no argument to show that relief would follow—the nerves in such case receiving their enfranchisement. But when these nervous symptoms do not readily yield to topical and constitutional treatment, the practitioner in his "seven-league boots" is apt to stride at once to the conclusion that the fault is organic in the brain or medulla spinalis, and to proceed to the heroic remedies, such as blisters, caustics, open sores, strychnine, etc., which, as a matter of history, so usually result in failure; and the system, in lieu of being relieved, is compelled to expend its waning powers in trying to bear up under the treatment. And why? Not because those remedies are not the ones indicated in many apparently similar cases, but because the bracing mechanical element is not discerned, and the corresponding desideratum is not supplied. Great numbers of cases under my own observation, which required the above remedies, and had them perseveringly applied, in hospitals, with doubtful, if any, benefit, on adding this mechanical element have gone steadily on to a cure, or an invaluable improvement. In these cases the support placed a quietus on the constant provocatives of the troubles, and furnished *terra firma* on which to mount other treatment.

Among many others is the case of Judge McCandless, of Pittsburgh, a large and heavy man, who left the bench suffering from nerve obstruction, as above—needed help always at hand in walking. Treatment produced no good in this case. A firm, compacting and bracing support to the abdomen and weak spine resulted in his going where and doing what he pleased, without fear of accident, the limbs having the benefit of the full force of the nervous and sanguineous circulation.

But one of the most important lessons learned from my extended investigation of this subject is, that a large proportion of the cases of paralysis are not *real*, but only simulated; that they do not originate in the brain or spinal column—in other words, no organic lesion of the brain or medulla spinalis has caused them, as in the genuine cases, but that the whole nerve is intact until after leaving the spinal column, and that it is on the *nerve's passage* from the spinal foramen to the foot that its free and full circulation is interrupted, resulting in a full set of symptoms of genuine paralysis, all of which have so often yielded to a deft support to the relaxed dorsal and abdominal muscles, and the consequent proper upward bracing of the lineal viscera.

But we are asked how this can be when so many cases of cure are reported, when very decided symptoms of a brain action are present? To this I reply, that those symptoms in such cases were but the reaction of a reflex action on the brain, which symptoms, joined to the primary ones first explained, make a double case, all of which yield on removing the mechanical element which evoked the symptoms. It follows, then, that where other symptoms indicated a cerebral origin, they should *first* be treated as only of mechanical origin, in the hope of success.

This is well illustrated in the following case: Mr. A. A., of splendid physique, became the subject of genuine locomotor ataxia. He navigated with difficulty with the aid of two stiff sticks; had little will-power over his motions; felt conscious of a "let-down" condition of his nervous and muscular system; felt "unbraced" about his loins. The ordinary powerful remedies had failed; and as a *dernier ressort* he applied for my mode of treatment, and received an immediate consciousness of greater firmness and stability in back and legs, and remarked, "I like him," and immediately used but one stick, and in a few days none. In three months he reported himself nearly well and said: "I swim, I dive, and drink freely, and last night was on a 'bum,' and feel first-rate to-day." Here, relieving the primary mechanical element in the case, relieved also the reflex action, and the cure was complete.

## CLINIQUE.

### COFFEE AS A POISON.

By M. O. Terry, M.D., Utica, N. Y.

In bringing to notice a few of the oft-proven objectionable features of coffee, permit me to say at the outset that I am not in league against the dealers in this article. I shall not discuss its reputed nourishing qualities, or consider it from a physiological standpoint, neither shall I describe in detail the extensive use ma le of it as an antidote to known and unknown poisons. The proof of its power as a drug

may be inferred from the fact that it is used to a greater extent than any other as an antidote for poisons, both animal and vegetable. I am not talking to the public in general who are well and who drink coffee regularly. I wish simply to gain the ear of those who have pains in the region of the heart, oppressed breathing, an irregular pulse; those who are excessively nervous and unable to sleep at night; those who have a full feeling, dizziness and pains neuralgic in character in various parts of the head; who have nausea and sourness of the stomach without having transgressed the laws of life; who have pains in the liver, a yellow skin with eyes of the same hue, and lastly, who have hemorrhoids. To those I offer these few suggestions: Omit the coffee for a time, "throw physic to the dogs," expel the caffeine from the system as soon as possible by warm and cold sponge baths, with rubbings, and thus each one prove for himself or herself whether coffee be the cause of nature's cries or not.

M. Guimaraes with M. Raposo, of Rio de Janeiro, in a thesis presented to the faculty of medicine of that city September 21, 1882, showed the effects of coffee on the functions of dogs, the results of which I will present: Autopsy: "Lungs anæmic; hemorrhagic plaques in the left ventricle; kidneys and spleen anæmic; liver, pancreas and intestines much congested; brain and cord anæmic.

"As a result, this and three other analogous experiments show that dogs given toxic doses of coffee stop eating, emaciate enormously daily, die rapidly, and show hemorrhagic lesions of the heart and lungs, congestions and fatty degeneration of the liver and intestines." In moderate doses, it is found, coffee almost invariably accelerates the heart, raises the blood pressure and rectal temperature and excites more or less the important functions.

It is our duty as physicians to remove the cause of disease. During the last twelve years I have seen some remarkable cases of coffee poisoning. Among the first which I recall was a servant girl who made it a habit to drain the coffee-pot after the family had retired from the table. The morning she came to my office she had fallen unconsciously between two jars, narrowly escaping a serious injury. I gave her no medicine, but simply said: "Discontinue coffee and report." She did so and was free from dizziness thereafter, a symptom that she had had for an indefinite period. A case quite similar to this was brought to my notice while in the Yellowstone Park last summer. The proprietor of the mammoth hotel asked me to see one of the servants whom they all had expected to die for two days. He had telegraphed for a physician, but could not procure one. I found a robust girl surrounded by anxious friends. She was very pale, her eyes showed the most intense anxiety, the pulse was rapid and irregular, and the heart's action labored. She informed me she had been drinking from three to five cups of strong coffee each day. I said "you can die if you wish to by continuing the excessive use of coffee, but if you really wish to live and to be entirely free from the symptoms from which you are suffering, discontinue it." I gave her no medicine, and have no doubt as to her recovery if she followed my instructions. It is not many years since a hale and hearty-looking policeman consulted me in regard to "disease of the heart." He had been under the care of an old-school physician for many months, his symptoms growing gradually worse. He thought he would be obliged to leave the "force." Ascertaining that he drank coffee, he was advised to discontinue it, with the result afterwards stated to me of a disappearance of his symptoms. It has been my observation that some of the strongest persons—in appearance—are subject to heart and head symptoms induced by this drug. In these days of sudden death it may well be a matter for consideration whether the continual excitement to which the nervous system is subjected under the general use of coffee, may not be a primary factor in its cause. The heart and brain require rest as well as other organs of the body. If the vessels in the brain are kept abnormally distended, we have as a warning dizziness, pain, and if these symptoms are not heeded, a breaking down of the walls of the vessels, and then we have apoplexy. So with the heart. So short are its intervals of rest when beating at the normal range of from 72 to 84 that we can hardly comprehend it. Add to this the stimulating action of coffee, which will send it up to 90 in many instances, but in others simply increasing the tension, and we have eventually a weakening of its muscular fibres, irregularity of its action, valvular disease, and subsequently a sudden cessation of its movements, producing immediate death.

Now, notice the action of coffee on the lower viscera: "In moderate doses it raises the rectal temperature." With an increase of temperature we have an increase of blood, then following the hyperæmia —congestion of the hemorrhoidal vessels, then inflammation, which shows itself in the form of piles, and lastly ulceration, with all its painful consequences. Now, if you prefer to escape the blood-thirsty hands of the surgeon, deny yourself the "delicious Java." And you, kind, hospitable friends, who worry your brains to entertain us at evening parties, give us, in place of the "delightful," aromatic, non-sleeping potion coffee, something more simple, as coca, bouillon, etc. Then will peace reign in our sleep, instead of the thousand and one horrors developed by its use in the "dreams" that "may come."

## A CASE OF CERVICO-BASILAR MENINGOCELE.

### WITH A POSSIBLE CAUSATIVE ANAMNESIS.

By F. A. Rockwith, M.D., East Saginaw, Mich.

I was called on June 3d, 1879, to see an infant two days old, having upon the nape of its neck a cystic tumor, suspended by a comparatively slight pedicle. It measured *in situ* 5⅝ inches in circumference, and

5⅜ inches in a vertical direction. The baby had weighed soon after delivery (midwife) eleven pounds with garments. It was perfect in all its conformations; it slept quietly when undisturbed by attempts at nursing, and whenever the tumor was not uncomfortably supported, as otherwise it would cry most persistently.

The translucency of the tumor under transmitted light, as well as its peculiarly characteristic membranous surface, left no doubt of its being a simple cyst containing fluid; hence the diagnosis of meningocele. After weighing carefully all the pros and cons of the justifiableness of a surgical interference, I yielded to the urgent solicitation of both parents, and removed the tumor with the galvano-cautery ecraseur. The baby did well after this; it took the breast readily and nursed without apparent distress. All its functions were normally fulfilled, and nothing otherwise untoward occurred to make a favorable issue doubtful. Early in the morning of the seventh day after the operation I was called with the information that the child had been taken with spasms. When I arrived at the house I found it already moribund and saw it expire a few minutes later.

Desirious of ascertaining the true nature of the tumor, that is, whether of rachitic or cranial origin, I obtained permission for a hasty *post-mortem* obduction.

Medical literature is not deficient in either descriptive or illustrative reports upon notan-encephalus, or upon hydromeningeal and achitic tumors and such like congenital anomalies. Yet little attempt has been made to give us anything like a causative understanding concerning them. The most grotesque popular notions have but too often found ready acceptance even by medical men. We have not yet succeeded in entirely throwing off the yoke of tradition, nor of the influence of theology (metaphysics, I ought perhaps to say instead). I myself have now to retract my psychological teachings of a few years ago, in that fecundation may *not* exert a longer influence upon the ovum than that of mere first-impulse, the catalysis of the sperm upon the germ, as in the law of crystallizations or cell-segmentation. If the anamnesis of this case can at all be established as causative of the above anomaly, then must it also establish the earliest independence of existence of the embryo, and that neither procreative influence (as in toxicosis during copulation) nor maternal after-impressions, as in Bishop's waterfall theory,* remain any longer as possible foundations for theorizing.

I expected to find here also, as in Bishop's case, some opening, either of an actual false foramen, or at least some cleft from whence this membranous pouch of fluid had escaped. But no such expectation was realized. The occipital shell, which in the latter case was foraminated, was here intact, and indeed the subcutaneous remnant of the pedicle was found to glide in an easy curve downward and inward along the convexity of the occipital bone into the cervical space of the neck, resting as a mere band-like abscission between the only slightly formed *massa lateralis*, upon the posterior rim of the atlas. By tracing this cysto-pedicellate remnant into the cranio-cervical space it showed conclusively to have been a mere prociduous extension of the dura mater, due to detachment from its arachnoid union and subsequent infiltration with serum and its after-enlargement by mere gravitation of its fluid contents. This ablation of the dura mater could be traced downward and beyond the dentatus, while upward it only slightly affected the occipital portion of that membrane. The cyst, too, exhibited all the evidences of its exclusive origin as a hernial dura mater, the external surface being rough and vascular, while the inner surface was smooth and glistening, still showing here and there loosely attached as well as freely floating pavement epithelia, from its former connection with the arachnoidea. During this investigation I felt it my duty to search for all possible psycho-somatic anamneses which this case could possibly offer; not only in the conformation of the parents, the ancestors and near relatives, but in the habits, life, accidents and social surroundings of the family, but all in vain. Ten months later I was again called to prescribe for the

* A case of malformation of the occipital bone. Large congenital tumor in connection therewith, by D. F. Bishop, M. D. Transactions of the Homœopathic Medical Society of the State of New York, Vol. VI., 1869.

family. This time it was for simple tapeworm in the mother. She had recently heard of several cases of tapeworm treated by me successfully with Peletierine. I now learned for the first time, in spite of my most careful, and I may justly say erudite investigation of the former case, that she had been subject to *helminthiasis tæniæ* for several years back, and was at this time more than commonly distressed by it.

But for several remarkable observations since the occurrence of the above case, I should have given, perhaps, little heed to this condition as reflective upon the former case. The valuable space of this journal, which has already, perhaps, been too lavishly surrendered to my humble pen, does not permit me to enter into any more extended detail upon the observation which here centered my attention upon this case of congenital anomaly. Suffice it, therefore, if I state merely that a woman in a neighboring town had long suffered from tapeworm almost as a permanent cachexy, and during which time she had borne two children afflicted each with an atelo-myelitic malformation, really so-called *spina bifida*.

I do not hesitate to assert that these observations must open up a new interpretation of the phenomena of these forms of monstrosities, for after all, perfect as my subject was from a plastic point of view, it must nevertheless rank with even the most disgusting forms of notan-encephalus. Certainly like intentions existed here. It is for science to ascertain the cause why it was not more extensive.

## A CASE OF GLAUCOMA PRECEDED BY IRITIS.

BY GEO. CLINTON JEFFERY, M.D., BROOKLYN, N.Y.

ON December 13th last I was consulted by J. B., German, aged 62 years, suffering with the following symptoms: Intense pain through the right eyeball, with accompanying supra-orbital and temporal neuralgia of the same side; the sclera red and injected with numerous and tortuous blood vessels, intense photophobia and *contracted pupil*. My diagnosis was at once simple iritis. Ordered atropia sulph. grs. ii. ad aqua destil ℥i, one drop to be instille devery two hours, besides a cold pack over the eye.

*December* 14*th*.—Morning; called at my patient's house; found him somewhat relieved; an increased dilatation of the pupil.

*December* 16*th*.—Saw my patient during the afternoon; pupil well under the influence of the atropine; comparatively less pain, with an improved appearance of the entire eye; much less photophobia.

*December* 18*th*.—The patient by this time was quite comfortable, and while the eye was somewhat painful the whole condition signified a tendency towards improvement. Atropine was continued in modified doses and at greater intervals of frequency.

*December* 20*th*.—Continued improvement; redness and pain rapidly subsiding.

*December* 21*st*.—I was sent for in great haste, the messenger reporting to me that without any apparent cause my patient was much worse, and that he had passed a wakeful night, owing to the great degree of pain to which he had been subjected. Upon examining the eye, I found the following conditions, much to my surprise: Increased dilatation of the pupil, some haziness of the cornea, increased shallowness of the anterior chamber and a sensation to the tips of my fingers of increased tension of the entire ball. My suspicions of acute glaucoma were very reasonably aroused, and while I suffered much inconvenience—owing to the steamy condition of the cornea—in examining the disc with my ophthalmoscope, yet through the cloudy media I could discern the dipping of the retinal vessels into the apparent cup at the optic nerve entrance. My diagnosis was now confirmed, especially when within a few hours there had been such a rapid destruction of sight that he could barely count fingers at one foot from the eye (Glaucoma fulminans of Von Graefe). I decided at once upon performing an iridectomy, and made my arrangements accordingly. The same afternoon, assisted by Dr. William B. Pierson, I instilled cocaine hydrochlorate 4% into the eye and removed a good-sized piece of the iris. The bandage was applied after instilling one drop of eserine grs. iv. ad aqua destil ℥i. and ordering that it be repeated every two hours until the following day.

*December* 22*d*.—Patient, much to my disappointment, was still suffering great pain, as I had relied implicitly upon the iridectomy as the proper means of relieving it. I ordered an increase in the frequency of instilling the eserine to one instead of two hours, besides, owing to the increased redness of the sclera, ordered a renewal of the cold applications.

*December* 23*d*.—Pain not relieved; patient walking the floor all of the previous night, owing to the intensity of his suffering. Continued the treatment of the previous day, besides giving him some opium internally.

*December* 24*th*.—The patient believed the pain to have moderated. The eye presented an improved appearance, and I felt much encouraged; reduced the strength of the eserine but continued at the same intervals, although the pupil had but slightly contracted.

*December* 26*th*.—Supra-orbital pain renewed, with, if possible, increased intensity, the patient declaring himself worn out with suffering. The eye was injected to the same degree of redness. I now concluded, after having faithfully tried the approved means in such cases without a favorable result, that

but one plan remained for me to pursue. I therefore suggested to the patient the advisability of enucleation of the entire eyeball. He at once agreed to any plan that might rid him of the intensity of his suffering.

Accordingly on the following day, December 27th, assisted by Drs. W. B. Pierson and H. J. Pierron, also Chas. T. Burtis, student, I removed successfully the entire ball, first having had the patient thoroughly anæsthetized. Pain was at once relieved, and the patient has made a rapid recovery. The peculiarity of this case is the occurrence of iritis having preceded the glaucoma, and, in my judgment, the inflamed iris is what accounts for the persistency and continuance of the ciliary neuralgia which allowed the failure of the iridectomy and required the enucleation of the entire ball as the only possible means of relief.

## SOME INDICATIONS FOR THE USE OF MEDICATED TABLETS.*

Silicea, $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. Especially suited to chronic, organic trouble; it checks long continued suppurations; in carbuncles after the inflammatory stage has passed; in impetigo capitis; chronic purulent bronchorrhœa; simple ulcer; in rachitis and scrofula; sweat about the head and tenderness of the general surface; non-syphilitic periostitis; whitlows; housemaid's knee; fetid perspiration of the feet; disorders from suppressed foot-sweat, worse at night and in the open air and from cold and dampness; better from wrapping up, and from warmth.

Spongia, ½, 1 and 2 minims; $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. In croup and laryngeal affections; hoarseness, tenderness, dry and painful cough and obstinate respiration; dry, hollow, barking cough; goitre; swelling and induration of glands; orchitis and epididymitis; organic heart troubles; palpitation, bellows murmur, great anxiety.

Stannum met., $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. In certain neuralgiæ, of a drawing, pressing character, commencing gradually and reaching an acme—when vomiting may occur—and then gradually decreasing; hypochondriasis with abdominal pains, better from walking about; great uneasiness; in phthisis and bronchitis, with a great deal of sputa, of a greenish color and sweetish taste; great emptiness of the chest, using the voice causes great fatigue.

Sticta, 1 minim. Catarrhal headache before the discharge sets in; influenza with painful dryness of the mucous membranes, the discharge drying rapidly into scabs; continuous racking cough; great pains through the chest; rheumatism; sleeplessness.

*Continued from page 274 of THE TIMES.

Strychn. et ferri citr., $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. Possesses the tonic properties of strychnia and iron.

Strychnia pure, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. See nux vomica.

Sulphur, $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. A stimulant to the capillaries of the skin and mucous membranes, and the nervous system of the pelvis; useful in the beginning of most chronic diseases; in many skin diseases where there is marked itching, better from scratching, and worse from the warmth of the bed; in diseases of the eye, especially the conjunctiva, with struma as a basis; in constipation and hemorrhoids; in diarrhœa when very urgent and early in the morning; in rheumatism, especially when chronic, worse at night from the warmth of the bed, and burning of the soles of the feet; in lung troubles, especially when traceable to suppressed skin-eruptions; in the exudative stage of pleurisy; in disordered digestion when there is a bitter, putrid taste; anorexia, fullness after eating; "goneness" and hunger at 11 A. M., stomach sensitive to the touch.

Tarantula, $\frac{6}{10}$, trit. Used in nervous affections; in chorea, convulsive hysteria and vesical tenesmus.

Tartar emet., $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. In lung affections when there is much secretion which the patient finds difficult to raise, with rattling in the trachea and bronchi, and nausea and vomiting. Thus often indicated in bronchitis, pneumonia; and œdema pulmonum; in catarrhal gastritis and enteritis with constant nausea and vomiting; pustules and ulcers in the alimentary canal; pustular cutaneous eruptions; hence, used successfully in variola and ecthyma.

Tellurium, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. Itching of the skin with papular and vesicular eruptions; vesicular eruption about the external ear producing an itching, burning, and swelling; a copious watery discharge from the ear, smelling like fish-pickle; tenderness of the spine may indicate it in spinal irritation.

Trillin, $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. In hemorrhages from the nose, mouth, lungs, stomach, bowels, bladder and uterus; has proved especially useful in epistaxis.

Thuya, 1 and 2 minims. Warty and condylomatous growths of the skin and mucous membranes; in gonorrhœa, especially when of long standing and when the prostate is affected.

Uranium nitr., $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. Has proved useful in diabetes mellitus; has produced gastric and duodenal ulcers and may prove useful in these conditions.

Ustilago maidis, $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. Affects especially the female and male sexual organs; in the latter, aching and sharp pains in the testicle; urine red and scanty; spermatorrhœa with erotic dreams; in the former, constant aching in the uterus; menorrhagia and metrorrhagia, and tendency to mis-

carry; congestive dysmenorrhœa; slow, persistent oozing of dark blood with small black coagulæ, lasting many days; abortion.

Veratria, $\frac{3}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. Externally in ointment has proved useful in neuralgias; in acute rheumatism and acute inflammations, generally has proved useful as an antipyretic.

Veratrum album, ½, 1 and 2 minims. In Asiatic cholera when violent vomiting and purging without any sudden collapse; colic with hiccough, and sense of suffocation; autumn diarrhœas with vomiting and purging, stools expelled with a forcible gush; great weakness and exhaustion with cold sweat on the forehead; intermitting heat; blue hands and cold feet; intense thirst; worse from the least food.

Veratrum vir., ½, 1 and 2 minims. Dull, heavy, frontal headache, coming up from the nape of the neck; shooting, stabbing pain over one or both brows; aching in the back of the neck and shoulders; erethistic and hyperæmic conditions of the brain and cord; in cerebro-spinal meningitis, the acute cerebral irritations of children; puerperal convulsions; in fevers, with a full, frequent, hard pulse, and tendency to cerebral congestion and spasms.

Viburnum opulus, 1 minim. General nervous irritability; hysteria; dysuria; spasmodic and neuralgic dysmenorrhœa; cramp-like pains of the stomach, bowels and bladder, when reflex from the uterus; paresis after cramps and convulsions.

Viburnum prunifol., 1 minim. A preventive against miscarriage; has rendered labor-pains milder and more bearable; severe after-pains.

Xanthoxylin, $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit. In disorders of the female sexual organs; menses too early and too profuse, with great pain; used successfully in dysmenorrhœa and after-pains; suits best delicate, nervous women; dysmenorrhœa with menorrhagia.

Zincum acet., $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit.

Zincum iod., $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit.

Zincum met., $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit.

Zincum sulph., $\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{6}{10}$, trit.

Trembling and twitching of the whole body; vertigo; sleeplessness; impaired mind and general nervous prostration; headache and melancholia; migraine; granular lids and pterygium crassum (Z. sulph.) chorea; epilepsy.

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AMBROSIA ARTEMISIÆFOLIA, (RAGWEED), AS A HÆMOSTATIC.—Dr. J. H. Hill has an article in the *North Carolina Medical Monthly*, on the hæmostatic properties of ragweed (ambrosia artemisiæfolia), with a decoction of which he claims to have uniformly succeeded in cases of epistaxis, hæmoptysis, and purpura hæmorphagica. Chewing the raw weed and swallowing the juice is also of service. The plant is indigenous to the Southern States, where it grows in cultivated lands and pastures, and is a common domestic remedy for the above complaints.

SUGAR IN THE BLOOD.—Prof. J. Seegen, of Vienna, recently published the results of his extended researches on the physiological relations of the sugar in the blood (*Wiener Med. Woch.*, No. 1, 1885). We abstract here his epitomized conclusions:

1. Sugar is, undoubtedly, a normal constituent of the blood.
2. Its quantity is larger than usually believed, viz., 1 to 0.15 per cent.
3. The blood passing from the liver contains double the quantity of sugar as the blood entering the liver. In thirteen instances Seegen found in the hepatic artery 0.119 per cent. of sugar, and 0.230 per cent. in the portal veins.
4. Counting that the blood takes up on the average, one per cent. of sugar in the liver, Seegen calculated that between 200 and 500 grammes of blood passed from the liver into the circulation during twenty-four hours.
5. Sugar in the carnivorous animals at least is elaborated from the albumen of food. The greatest part of the carbon contained in the meat animals feed upon is utilized for the formation of sugar.
6. In experiments which excluded the liver from the circulation the proportion of sugar in the blood was found to be decreased.
7. The formation of sugar in the liver and its utilization in the blood and tissues is one of the most important of tissue-changes.—*Therap. Gaz.*

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TREATMENT OF GALL-STONE BY THE ELASTIC BANDAGE.—Dr. Qvisling states (*Tidskrift for Prakt. Med.*, quoted in *Nord. Mediciniskt Arkiv*, band xvi, haft 4) that in seven cases of gall-stone (two men and five women) he has seen good results follow the use of Martin's elastic bandage. Its action depends on the immobilization of the abdominal organs, by which the calculus is prevented from irritating the mucous membrane, and from causing reflex contractions of the muscular coat of the gall-bladder. The bandage is applied rather firmly over the upper edge of the hepatic dulness, as far down as the crest of the ilium, a piece of flannel being placed under it. It may be removed at night, if desired by the patient. Its use should be persisted in until the patient appears to be definitely cured.—*London Medical Record.*

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ALVELOZ.—This is the name of a plant which has been sent by the American Consul at Pernambuco to the State Department, with the statement that it belonged to the euphorbiaceæ, and that several cases of alleged cancer had been cured by its application. Unlike condurango, which was an alleged internal remedy for cancer, alveloz is an external application. Its mode of operation is similar to that of jequirity. A profuse suppuration follows its application to a granular surface. The drug was used in Washington, by Dr. Smith Townsend, in a case of lupus of the nose which was of nearly forty years' standing and had resisted all previous treatment. The ulcer was cured within a few days.

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COCA CIGARETTES FOR ASTHMA AND COUGHS.—According to the *Medical World*, cigarettes made of tobacco mixed with an equal portion of crushed leaves of erythroxylon coca, give much relief in asthma, hay fever and chronic cough. The flavor is quite agreeable, and a very pleasant aroma pervades the room. Their sedative action on the larynx and pharynx is quite remarkable; and they certainly seem to allay spasm, and to produce in a lesser degree, the same results obtainable by hydrochlorate of cocaine on these parts.

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"*A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and* OUGHT *to be the* ONLY ACKNOWLEDGED RIGHT *of an individual to the exercise and honors of his profession.*"—Code of Medical Ethics, Amer. Med. Ass., Art. iv., Sec. 1.

Our practice is *not* "based on an exclusive dogma, to the *rejection* of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology and organic chemistry."

## MEDICAL TREATMENT VIEWED BY A MODERN SCIENTIST.

DR. SAMUEL WILKS, who has done excellent work in pathology and clinical medicine, in a lecture recently published in the *London Lancet* ventilates his ideas upon the lack of real science in medical treatment, which arises in his estimation from a wrong way of getting at disease. He thinks "all systems which begin with the cure by drugs are erroneous, narrow in principle, and savor of quackery, as making a direct appeal to popular feeling. The proof of this lies in the fact that all quackery consists in physic-giving and nothing else. Take away the quack's pills and there is nothing left; take away our pharmacopœia and there is a large basis of science and art still remaining for the benefit of mankind. The medical man should first lay a foundation for scientific and successful work in a knowledge of the anatomy and physiology of the human body and then direct his attention rather to the cause and character of disease than to drugs to be given. Of those we have more than enough always at hand if we only knew when and how to use them, without lumbering our books and our memories with useless rubbish." He thinks as soon as the cause and nature of the disease is fully known, the remedy will suggest itself almost as a matter of course. "The study of disease first and of therapeutics last is the way that the improved treatment of the present day has come about. Thousands of persons are now cured of epilepsy, paralysis and various other nerve disorders by means of iodide of potash; and why? Because syphilis was found to attack the brain and internal organs when a more extended and closer observation of morbid structures was begun to be made in the post-mortem room. An improved treatment saving thousands of lives annually, arose not from the discovery of a new drug but from work in the dead house. Suppose phthisis is proved to be of bacillary origin, and is to be treated by antiseptics, where are we to look for the origin of the improved treatment? Not to any new remedies, for they were already at hand, but to the pathological laboratory of Berlin. The enormous improvement in surgery, due to the antiseptic treatment saving thousands of lives every year, was not due to the discovery of new remedies, but by utilizing those we had. And thus a very large part of the improved treatment of the past few years has not been due to the use of new drugs but to pathological and clinical researches which have pointed out the use of those already known." Dr. Wilks seems to think there is not much science in therapeutics, and that it at best is but little more than fetich worship. The secret of this lack of faith in therapeutics arises in a great part, we think, from his having failed to study the action of drugs in a scientific manner.

In speaking of phosphorus, he says "this was a scientific remedy because the brain contained it, but doomed soon to become ridiculous when the public believed their minds were becoming invigorated by swallowing zoedone. I never remember of seeing more than one patient the better after taking phosphorus, and therefore I am bound to look upon this as a coincidence. In my private pharmacopœia I have attached to the word phosphorus the name humbug." No man who had studied this drug in the light of scientific therapeutics could have made such a statement as the above. Take, for instance, the third stage of pneumonia, what drug more potent or more uniformly reliable in producing the desired results? Strychnia he considers valueless in paralysis but of decided benefit in gastric and intestinal weakness, but is not aware that its administration in these disorders was due to any suggestion of the physiologist. Here again the writer has studied his drug, if he has

studied it at all, from the wrong standpoint and has expected too much. No intelligent observer would expect in paralysis arising from change of structure in nerve tracts or in ganglia any benefit from strychnia, but there are conditions of nerve centres and branches characterized by weakness and the irritability arising from weakness where it is of most decided benefit. He has simply failed to individualize the specific action of his drug. Again of conium, he says experiments show how it rendered inactive the motor columns of the spinal cord and therefore it was thought a remedy for chorea, but in that disease it has been pushed to poisonous doses and put aside as valueless, and suggests that it is hardly likely that a disease which was not to be arrested by such powerful sedatives as opium and chloroform would be subdued by conium. But in the treatment of this disease, is a sedative, as that word is generally understood, what is needed, and has he not mistaken the curative action of the drug in pushing it to poisonous doses? If the author had ever noticed the wonderful effect of small doses of conium in rousing into increased action the nerve force in old age, increasing the powers of digestion and checking the wasting of tissues, he might see that he was on the wrong track. Supposing the researches of the pathologist has shown the ravages of syphilis among all the organs of the body, as is stated by our author, did the possible cause of a great many of the aches and pains and diseases the origin of which before was buried in mystery, in itself point to the curative remedy. What was there in pathology by itself to point to the iodide of potash and mercury as a cure for syphilis or quinine for malarial intermittent? Thanks to the therapeutist, first in determining the specific action of the drug by watching its effects upon the living organism and noting the pathological changes revealed under the microscope and the knife, and to the pharmacist next in preparing it so as to be suitable for administration, the researches of the pathologist has been rendered available in the cure of disease. So much attention in times past had been given by so-called scientists and by the profession generally to the pathological conditions of disease and to the cause, and so little to relief and cure, that the great need of specialists in therapeutics was painfully apparent. The triumphs of modern medicine are due not alone to the specialist in therapeutics or to the pathologist, but to a careful study of the cause and pathological conditions produced by disease and a still more careful study of the toxicological and chemical action of drugs upon the living economy. The real science of therapeutics consists in so choosing the remedy and adapting the dose as to meet the different conditions of the system. This is not a work of empiricism or of chance but of careful clinical and scientific study in which pathology and therapeutics are so linked together as to produce the highest result. If Dr. Wilks will study carefully the writings of his friends, Phillips, Ringer and Brunton, to say nothing of those of Hahnemann, he may in a future lecture revise his present opinion of therapeutics.

## THAT ANTI-VACCINATOR AGAIN.

AN esteemed correspondent writes us that the story respecting the man Escott, who it was alleged, turned from the error of his ways, by losing his wife and two children by small-pox, has been greatly exaggerated. As we have no desire to misrepresent the facts in the case and have no means of substantiating or of refuting them, we will give the version as it comes to us for what it is worth. In 1880–1, there was a small-pox epidemic in Rotherhithe, a small provincial English town. About six months after the disorder first became prevalent, one of the children of William Escott was seized with small-pox. Escott's family consisted of himself and wife and six children. As he had no faith in the protective power of vaccination none of the children had been vaccinated. All of the family except the father took the disease. Two of the children and the mother died. Escott, although he had never been vaccinated, did not take the disease, and this in spite of the fact that he was the sole attendant on the seven stricken persons. His wife had been vaccinated, but she took the small-pox and died of it. When his wife died, Escott borrowed a suit of clothes in which to appear at the funeral. These clothes were subsequently returned to their owner, who wore them for three weeks, when he also sickened with small-pox, and died of it, but so far as is known did not communicate it to others.

It is said that Escott was not a "leading anti-vaccinator" but an "obscure individual in a provincial town," all of which is doubtless true, but the

fact that he allowed his six children to go without vaccination, shows him to have been at least a most *practical* anti-vaccinator!

There has been so much deception practised in this matter of vaccination, that the subject has become involved to an extent almost beyond extrication. It has been the custom of some anti-vaccinators, to imitate the scars of vaccination upon the persons of their confiding patients by other means than by the inoculation with specific virus, thus not only deceiving and cheating the records, but practising a fraud upon the community which should be punishable at law as a crime against the commonwealth.

Who knows how many of these persons claimed to have been vaccinated were only fraudulent imitators? We suggest that our present legislature would do well to frame a law to meet this humbuggery.

The anti-vaccinators constitute a small minority in the civilized world, and their arguments fail to increase the number, while on the other hand the statistics where uncomplicated by the fraud above referred to show that of two evils the practice of vaccination is much the least.

## PHYSICIANS AS SANITARIANS.

Dr. R. Wescott recently read a paper before the New Jersey Sanitary Association on the "Duties of Physicians and Sanitarians," in which he points out in unmistakable language the relation of physicians to the spread of contagious diseases. He says "the time when any others than fatalists and other idiots could insult the Almighty by attributing such fatalities to 'mysterious dispensations of Providence' has passed away in enlightened communities.

"Some one is responsible in all such cases, *and if the physician neglects his duty in the use of efficient sanitary precautions to prevent the spread of the disease, that responsibility rests on him.* It is his duty to see that proper measures are adopted, not only to save his patient, but to prevent that patient from becoming the cause of disease and death to others.

A physician must necessarily become a public as well as a private sanitarian. Without a knowledge of sanitary laws, an active interest in sanitary reforms, and keeping abreast with modern discoveries and improved methods, the physician soon ceases to retain the confidence of the people and drifts into the ranks of the pill peddlers."

## PUBLIC CHARITIES AND CORRECTION.

The Department of Public Charities and Correction reports a census for December of fourteen thousand, being an increase of fifteen hundred over the corresponding month of last year. The increase is steady with the growth of the city, but rating the population at 1,500,000, those who are supported by its charity are less than ten to every thousand. This includes not only the inmates of the almshouse, asylums and penitentiary on the islands, but also the inmates of the hospitals there, of Bellevue, the several city hospitals and prisons, including the Tombs. Ten hospitals are embraced in the number, three lunatic asylums, two workhouses and the almshouse. The care of these institutions requires a force of 1,100 employes. The estimate made by the Commissioners of the money needed for the support of the institutions for the year is $1,947,607; of this amount nearly $500,000 is for repairs and the new buildings required for the increase in the number to be cared for. For supplies alone the estimated cost is over $1,000,000.

This department is managed by the Commissioners with great economy, and in some respects, especially the item of salaries, is altogether too low for the best interests of all concerned.

The average cost per capita of the dietary in the Workhouse was nine cents per day. Charity Hospital on Blackwell's Island the dietary cost averages 17 1-5 cents for each person; in Bellevue, the average is 21 cents. The sick have a positive need of stimulants and light deliacacies, so that if you withhold them the death rate runs up. The foolishness of any attempted economy where the inmates are old and weak is shown by the fact that such an attempt throws them at once into the sick list and increase the cost of their support.

The department proposes among other things to improve the ventilation of Bellevue by the introduction of an automatic system. This would not only make the circulation of air in the buildings better, but it would save in fuel enough to pay for itself in five years. New buildings are needed on Riker's Island, which has been recently purchased. A great

deal of this work is done by pauper labor, and improvements will also be made on the farm for the insane on Long Island. There are 1,000 acres in this farm, and the removal of patients to the farm lightens in a measure the pressure on the islands. Food supplies were unusually low last year, lower than they are likely to be again for a long period. Bids that have just been received show that supplies will cost from $50,000 to $100,000 more this year. It costs $10,000 for medicines; coffins, and transportation of patient's coffins alone, of the cheapest kind, cost the city a great deal of money each year. When a prisoner is discharged he receives $5 in money and a suit of clothes, the whole equivalent to about $15. This sum is placed at $4,500, but it is afterward repaid the city by the State.

On the whole this most important department is excellently well managed by Commissioners Brennan, Porter and Simmons.

## ANOTHER NOBLE CHARITY!

THE generous gift of half a million dollars by the late Wm. H. Vanderbilt, to the College of Physicians and Surgeons of this city, has been supplemented by a substantial offer on the part of his daughter, Mrs. Wm. D. Sloane, with a view to carrying out the expressed wishes of her late father. Mrs. Sloane has agreed to erect a maternity hospital upon the property purchased by the funds given by Mr. Vanderbilt. This property consists of twenty-nine lots, and is situated on Tenth avenue, comprising a large portion of the block between Fifty-ninth and Sixtieth streets. It was the wish of Mr. Vanderbilt, expressed at the time he made his gift, that New York should be the centre of medical instruction on this side of the Atlantic, and that it should have a college that would rank with the best medical schools in the Old World. It was his design that this large sum of money should be used as a building fund exclusively, and not applied to the maintenance of chairs in the college.

The trustees of the college have consented to the proposition, and the hospital will soon be a fact. The lots set apart embrace an area of 75 by 100 feet, and the building will face on Fifty-ninth street. The details are not yet perfected. No expense will be spared, and it is intended to make this the most perfect institution of this kind in this country. The building will be of brick with terra cotta trimmings, and the architecture will be in harmony with the general design of the larger structure. It is fitted up with every modern convenience. There will be accommodations for twenty-five patients, and with the usual length of time allowed for patients to remain in the hospital, five hundred can be taken care of each year. Work on the college building will be started on March 1. It is expected that the maternity adjunct will be finished and occupied by patients long before the college, the opening of which is now set down for October 1, 1887. It will be called "Sloane's Maternity." In order that every applicant may be admitted, no matter what her condition in life may be, it is especially provided that all the beds shall be free, and there will be no restrictions as to whether the patients are married or single or have been in a similar institution before.

Mrs. Sloane will establish a trust fund for the maintenance of the maternity forever.

This gift marks a most important era in the department of obstetrics in this country, and will be fully appreciated by the profession we are confident, as it fills a gap that has been longing to be filled for a great length of time.

Students in medicine have gone forth with little or no practical knowledge in this important branch, because no opportunity was afforded them, but now there will be no excuse for a lack of experience in clinical midwifery. Doubtless other colleges will be stimulated to like effort in order to be up with the foremost, so that this noble benefaction has a wider significance than at first appears. The Nursery and Child's Hospital charges $25 a patient, and the Marion street Asylum will only take married women; so that the only place left for poor and unmarried women has been the Charity Hospital, on Blackwell's Island, or the Emergency Hospital, where patients are received in cases requiring prompt attention. The College of Physicians and Surgeons has long felt the need of a maternity hospital in order to round out and make the college course complete. Being upon the college grounds, and so well fitted up for observation and clinical study, the benefits will be received not only by the patients, but doctors will be sent out more fully equipped to practice their profession.

## LET EVERY TUB STAND ON ITS OWN BOTTOM.

An American, appointed to an official position in China, was informed that his social standing and his influence in the country would depend to a certain extent upon the titles he could attach to his name. By adding the name of every society and association to which he had ever belonged, and connecting himself with the army as a High Private of the Swampscot Militia, State of Maine, United States of America, he had a string of titles of the necessary length to properly impress the great Chinese public. It is doubtful whether it is in good taste for enlightened America to copy in this respect even so old and venerable a nation as China. Our people are more accustomed to look at the matter than the binding, and to judge of institutions and of scientific and literary work by the evidence they present in themselves of intelligent and thorough work. Certain titles are honorable and justly carry weight with the public, because they indicate ability, or at least long and faithful work. But when they are given as a reward for wire-pulling and party scheming, or to bolster up an institution with which the party named has some connection, they are very likely to be looked upon with distrust. "*Emeritus*" is a title of dignity, and where of any value is given as a reward for faithful services as a teacher, but when you find it figuring in the faculty of an institution, not as a reward for services rendered in the lecture room, but rather for wire pulling, and to strengthen a commercial enterprise, it is an element of weakness instead of strength, and where the facts are known, excites a smile of derision. Can there be any possible advantage in an institution heading its faculty with the name of a popular and brilliant surgeon more than two thousand miles away, as Honorary Professor of Surgery, when there is no probability of his ever entering the lecture room? Is it not rather a lack of self-respect, and a confession of weakness calculated in the minds of sensible people to do harm? Jackson's forcible remark, "let every tub stand on its own bottom," is so trite and true that it has grown into a proverb, and this attempt to strengthen institutions and commercial enterprises with prominent names of men who are not expected to do any work, and with undeserved titles, savors of weakness, and often casts a cloud over deserving enterprises.

## MISCARRIAGE OF JUSTICE.

A case was recently tried in this city, the facts of which are of great interest to the profession, and are briefly as follows: In November, 1879, Dr. A. E. M. Purdy was called to see Miss Angelina Brown. On his arrival he diagnosticated small-pox. He saw her later in the day with Dr. A. S. Purdy, who likewise diagnosticated small-pox. Still later he saw her again with Sanitary Inspector Dr. C. E. Lockwood, whom he had notified of the case. Dr. Lockwood's diagnosis was small-pox. The patient went or was sent to the small-pox hospital. On her arrival the house physician, Dr. Bowen, made a diagnosis of small-pox, and so reported to the Board of Health. He subsequently revised his diagnosis and certified that Miss Brown was only suffering from eczema, and told her that she need not remain in the hospital. She voluntarily remained there, however, for some days.

After leaving the hospital she brought suit against the Drs. Purdy, claiming damages to the extent of $10,000. She asserted that the diagnosis made by Dr. A. E. M. Purdy, Dr. A. S. Purdy, and Dr. C. E. Lockwood was incorrect, that she had been damaged to the above-named amount by being sent to the small-pox hospital, and that she was sent there through the agency of the Drs. Purdy.

On the trial of the cause, in November, 1885, in the Superior Court before Judge Ingraham, the counsel for the defendants moved to dismiss the complaint, on the grounds that the defendants had not sent the plaintiff to the small-pox hospital, but that the sending of Miss Brown to the hospital was the act of the Board of Health, for which the defendants were not responsible.

His Honor denied the motion, and ordered that the trial proceed before the jury.

The plaintiff on the stand gave a lengthy history of her experiences, and declared that she was not suffering from small-pox in November, 1879, but from the effects of a local irritant that she had applied to the skin.

The defendants testified minutely as to the symptoms and eruptive appearances present at the time of their examination, and declared that they were unmistakably indicative of small-pox.

Dr. Lockwood testified to the same effect, that his opinion was formed independently of the Drs. Purdy and *that Miss Brown was sent to the hospital in conformity with the rules and regulations of the Board of Health.*

Dr. Austin Flint, Dr. E. L. Keyes, and Dr. George H. Fox testified that, from the recital of the symptoms and the character of the eruption, as detailed by witnesses, Miss Brown was undoubtedly suffering from small-pox at the time referred to. Other physicians were in court prepared to testify to the same effect.

At the close of the testimony the counsel for the defense again moved that the case be dismissed on substantially the same grounds as before, to wit: that it was the Board of Health, and not the Drs. Purdy, that caused the transfer of the plaintiff to the hospital.

His Honor again denied the motion, and in his charge to the jury said in effect that *the defendants had set in motion the machinery* that led to the plaintiff being sent to the hospital.

The jury brought in a verdict of $500 against the defendants.

The features of the case that are important to the medical profession of this State do not hinge on the correctness or otherwise of the diagnosis.

The essential point is whether a physician who complies with the law requiring him to report cases of suspected small-pox thereby becomes liable for any damage arising or claimed to have arisen through the subsequent acts of the Board of Health.

The decision of Judge Ingraham in sending the case to the jury would imply that the physician may thus become liable.

This decision, in accordance with judicial custom, will be considered law until reversed by a higher court.

The case of Brown *vs.* Purdy having been brought to the notice of the Medical Society of the County of New York, that body referred the matter to its *Comitia Minora,* with power. The Comitia, believing that it would be expedient to appeal from Judge Ingraham's decision, provided sufficient funds could be raised, appointed a special committee, consisting of members of the society, for the purpose of raising said funds.

It is said that out of 2,500 persons sent to the small-pox hospital in this city, forty-two were on a false diagnosis.

It is proposed to memorialize the legislature to pass a bill exempting physicians from liability for complying with the regulations of the Board of Health, which seems a reasonable proposition.

## BIBLIOGRAPHICAL.

FASCICLE III. OF MILLSPAUGH'S AMERICAN MEDICINAL PLANTS, published by Boericke & Tafel, contains illustrations and letter-press descriptions of thirty plants. The illustrations are beautiful as works of art and so correct in coloring and drawing as to give a very accurate impression of the appearance of the plant. The letter press gives a description of the plant, its history and habitat, the parts used and preparation, chemical constituents and physiological action. The three parts already published contain an illustrated description of ninety plants, forming a materia medica and pharmacopœia of rare beauty and value, which has only to be seen to be appreciated. Two parts are issued in the year, at a cost of five dollars each part. Fascicle IV. will be issued in the spring.

A. M. WOOD & CO., Chicago, publish a small pocket volume containing nine lectures on syphilis, delivered at the College of Physicians and Surgeons by G. Frank Lydstone, M. D. The lecturer has succeeded admirably in placing before the student a plain, practical idea of the subject of syphilis in the light of modern investigation and has added materially to the value of the work by the practical points drawn from his own personal observations in hospital and dispensary practice. An appendix contains numerous formulæ used in treatment.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE, by James Tyson, M. D., published by P. Blakiston, Son & Co., has reached its fifth edition. The work is so concise and practical that it is used as a text book in most of the medical colleges. Each succeeding edition is brought fully up to the time of its issue.

## OBITUARY.

DR. EDWARD C. FRANLKIN, of St. Louis, widely known as a surgeon and as a teacher and writer, died while seated in his chair in his office in St. Louis, after having made his morning professional calls, at the age of 64 years.

Dr. E. A. FARRINGTON, Professor of Materia Medica in the Hahnemann Medical College, Philadelphia, and associate editor of the *Hahnemannian,* died on the 17th of December, aged 40 years, after an illness of a year. Dr. Farrington had endeared himself to a large professional circle as a clear and forcible writer and an able teacher.

BATHS OF PERMANGANATE OF POTASH.—Hüllman (*Arch f. Kinderhlkde*) recommends full baths of permanganate of potash, one gramme to a bucket of water, as very effective in scrofulous exanthemata, in prurigo, eczema, and intertrigo; also in the stage of desquamation of measles and scarlatina, to prevent contagion.

# CORRESPONDENCE.

## OUR LONDON LETTER.

*To the Editor of the N. Y. Medical Times:*

War is declared. The allopathic despotism has at length become intolerable in this country, and the minority, whose only fault is that they know more than their fellows and are not ashamed of what they know, have at length resolved to strike for truth and justice. When a firm of general publishers of such respectability as Macmillan & Co. can stoop to insult a man of the scientific eminence of Dr. Dudgeon because of his professional convictions, about which they can know nothing, and when editors like Dr. Lauder Brunton, (whose latest work on "Pharmacology and Therapeutics" is filled in the therapeutic part with homœopathic "convergings," and who is probably using every day the sphygmograph of Dr. Dudgeon's invention) can so demean themselves as to give such conduct their approval, it is plain that the time to strike has arrived. The chairman of the London Homœopathic Hospital, Major Vaughan Morgan, has offered a prize of 25 guineas, open to all the world, for the best short essay on the system of medicine we practice. It is hoped that America will furnish a good number of competitors. The essay which receives the award will be printed and circulated broadcast. In this way the conspiracy of silence, which has proved not a little effective in the past, will be broken, and the interest of the public will be aroused, since the dominant section of the profession with its leaders and hangers-on cannot bring themselves to open their minds to fair argument, or to behave with common decency toward those who have been led to adopt unfashionable convictions. In the meantime a guerilla warfare will be maintained, and no act of oppression to one of our body will be allowed to pass without rebuke.

The death of Louise Pelletier from hydrophobia, fourteen days after M. Pasteur had concluded a series of inoculations which had, as he supposed, rendered her proof against that disease, will go a great way to burst the inflated bubble of his reputation. More unscientific proceedings in the name of science have never been exhibited to the world than those which Ferran and Pasteur have added to the many ills that flesh is heir to. As it has been proved that Ferran did much to assist the progress of cholera in Spain, so it has been pretty conclusively shown that Pasteur has been spreading rabies amongst dogs. Dogs that he had inoculated to prevent their becoming rabid have become so after they have been restored to their owners. And now he has created a new disease—"hydrophobia-phobia,"—the *fear* of hydrophobia. This disease has now reached such a pitch that every dog-bitten person at once "supposes" the dog that bit him was mad, and wants to go to M. Pasteur. But as a friend remarked to me the other day there is a great difference between a "supposed mad dog" and a real mad dog. Hahnemann, in *The Friend of Health* (1792) (*Lesser Writings*, translated by Dudgeon, p. 194) exposes in a masterly way the fallacious arguments of the nostrum-mongers of his day, which are of precisely the same kind as those of M. Pasteur. "Some persons are bitten," he says, "by a dog supposed to be mad"—as was the case with M. Pasteur's first patient, Meister. "They use with all speed the renowned specific, and none of them take the hydrophobia; all recover from their wounds without any serious consequences following; and all the country round"—all the so-called civilized world in the case of M. Pasteur—"tell the wondrous curative virtues of, it may be, the May worm electuary [a nostrum for the hydrophobia purchased at an extravagant price by the Prussian Government] or whatever else these patients used." And M. Pasteur's nostrum is the greatest medical "discovery" of the year 1885!!

Yours truly, JOHN H. CLARKE, M. D.

15 St. George's Terrace,
London, S. W., January 4, 1886.

# TRANSLATIONS, GLEANINGS, ETC.

PROPERTIES OF BOLDO.—Dr. Laborde (*Revue de Thérapeutique*) concludes an account of his investigations upon boldo as follows: The therapeutics of the glycoside of boldo, as indicated by experimental study, are predominantly hypnotic, and its use is indicated in those cases where insomnia is to be combated and it is desirable to obtain tranquil sleep. The drug, under such circumstances, presents marked advantages over the other hypnotics, especially over opium, in that it does not involve risk of establishing any condition analogous to the opium habit. Though the dose is large, the almost entire absence of toxic effects enables it to be given in large quantities without fear of bad results. It may be administered in doses of fifteen grains at intervals, until four or five doses or even more have been taken. It is not only indicated in insomnia but in cases where it is desired to regulate or re-establish certain secretions, notably those of the liver, kidneys or salivary glands.

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PROSTATIC MASSAGE IN RETENTION OF URINE.—A very ingenious device is recommended by Dr. J. M. Le Rütte, in the *Weekblad*. The operation is performed by introducing the forefinger into the anus, and moving the prostate three times to the right, three times to the left, three times longitudinally, and then rubbing the surface. This proceeding causes some discomfort to the patient, and cannot long be borne. A gentleman above fifty years of age, who for a year had found increasing difficulty in passing water, was seized with complete retention. Neither soft nor metallic catheters could be passed. Nelaton's bougie was, however, introduced, and a great quantity of urine drawn off. A large prostate was felt per anum. After twenty massages, with warm bathing every evening, he regained the power of passing water normally, and he has now had no difficulty for two years. A gentleman, aged seventy, suffered in the same way. After fifteen massages, a cure was effected, and the patient continued well. With both patients the massage caused some hemorrhage from the prostate into the urethra, which an iron mixture was found quite sufficient to stop.

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RESTORING GRAY HAIR TO ITS ORIGINAL COLOR.—We have under our notice (says the *Medical World*) a patient whose prematurely gray hair is slowly but surely returning to its original color, under the internal administration of phosphorized cod-liver oil (which is being taken for another purpose). We have observed this effect of the phosphorus and oil before now, and are inclined to think that the hopes of success are more rational from this treatment than from the use of any of the so-called hair restorers.

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THE OPERATION OF TURNING.—When you cannot find the feet of a child, in the operation of turning, reach for the fundus of the uterus, and when there open the hand widely and withdraw it slightly. The feet will then come into the hand of the operator. This operation is often facilitated by the knee-chest position.—*Med. World.*

EVILS OF TALL SCHOOL-HOUSES.—[From the annual address of the President of the Kentucky State Medical Association.] Leaving out of view for the present, the difference in the surroundings of city and country girls in regard to air, food, clothing and so on, let us fix special attention on the difference in the surroundings of their daily school life. The country school-house is seldom more than one story high ; seldom with more than one room, almost never with more than two ; located on some breezy hill, or healthful spot, with no other house near. The ventilation is excellent, each house or room rarely has more than twenty or thirty pupils. The pupils get fine exercise in the fresh air of morning and rarified air of early evening in going and returning from school, horseback or on foot. They have frequent recesses, from ten minutes to an hour and a half long. At noon free exercise is permitted in the open air. Seldom has any pupil more than four studies. Hence physical development keeps pace with the mental ; they both go on together, helping, not hindering each other, until we have a fully developed healthy woman.

How is it in the cities, especially since public education has become so popular? In the first place the school-house is in some thickly populated part of the city, built from three to four stories high at that, surrounded often by filthy streets and alleys. I have seen them have the fourth floor thirty-five or forty feet from the ground, and reached by flights of stairs which the girls had to ascend and descend from four to six times (or more) in about six hours of every school day, and this too, let it be remembered, when girls need the greatest care and attention, and should be spared all such cruel and dangerous exertions.

There is not a doctor in my hearing who does not know that girls in ascending these stairs bring into active exercise first the diaphragm and the abdominal muscles in such a way as to press the abdominal viscera downwards upon the pelvic viscera, so as very frequently to displace the uterus, and sometimes to bring its ligaments on such a strain as even to displace ovaries; thereby superinducing metritis, hypertrophy, flexion, version, prolapsus, and all the series of dreadful and painful diseases to which sweet woman is a victim—and that is not all. When they reach what I choose to call these elevated slaughter houses, the girls are so crowded that the air in the room soon becomes vitiated and unfit to breathe.

And to put on the cap stone of torture and ruin, they are held under a high mental strain from three to four or even six hours in preparing and reciting some eight or ten, or more different studies in such a way as would tax the energies of the stoutest man. No wonder we have in every city one or more gynecological sanitariums filled with suffering women. It is a fact worthy of notice that in the last few years these specialties and these institutions have increased at a fearful rate.

I would not name three and four-story school-houses as the sole causes of these dire evils ; yet I do solemnly affirm that to my mind they seem to be one of the prime causes if not the chief. Yes, I will go further and say, that I verily believe these high storied school buildings are one of the chief curses of the land, in this : That they contribute so largely to disqualify woman for the purpose of her creation.

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TESTS FOR ALBUMEN.—Our own observations coincide with those of Dr. Harris in the use of the heat test for albumen, it being quite as satisfactory as any other and used with much less trouble. The urine, however, must be just acid enough. If it is alkaline it must be acidulated before boiling with a little acetic acid, being careful not to add too much acid.

SEE ON THE TREATMENT OF ASTHMA BY PYRIDINE.—This colorless and strongly scented fluid is obtained from many organic substances by dry distillation. It had been detected in nicotine and other alkaloids and in the fumes of tobacco. It is probably the active principle of the various cigarettes and papers which have been recommended against asthma. Recent experiments by MM. Sée and Bochefontaine have shown (*Bull. Gen. de Therap,*) that it produces in frogs and guinea-pigs a diminution of the irritability of the respiratory centre. Pyridine has been tried in asthma with marked success ; 4 or 5 grammes of this fluid are poured on a plate and placed in a small room in which the patient remains for from 20 to 30 minutes, three times a day. The respiration becomes easy, and after a few sittings the disease disappears more or less completely, The inhalations have no bad effect on the heart or general health. In spite of these good results, M. Sée still considers iodine the best curative remedy in asthma; pyridine is chiefly useful against the attacks of asthma.—*London Medical Record.*

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A NEW SYMPTOM OF PREGNANCY.—Dr. C. Reinl, of Franzensbad (*Prager Med. Wochenschrift*, No. 29, p. 253, 1884), reports a new sure diagnostic symptom of pregnancy in the first month. He learned of this symptom in the clinic of Hegar. He also confirms his report by mentioning briefly six cases. The women were in the commencement of their pregnancies and all showed the same appearances, viz.: an unusual softness, sponginess and thinness of the lower uterine segment, that is, the part immediately over the insertion of the ligamenta sacro-uterina. This condition is not noticed only when the remainder of the body is hard and firm, but also is quite evident when the remainder is in a soft and elastic condition. The author is of the opinion that through the gravidity, the thinnest portion of the uterus, the lower uterine segment, becomes loosened, thinned and very elastic.

While the author considers this a sure sign of pregnancy, yet he does not claim that the absence of this symptom excludes pregnancy. It may, for instance, occur in chronic uterine infarction. To know of the presence of the symptom in question, one shall, according to the author, have one finger in the rectum and at the same time bring counter pressure with the other finger upon the abdominal wall, and thus palpate that part of the uterus lying next to the cervix. In pregnancy it is often found that this lower part of the uterus is only about two-fifths of an inch thick.

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AN IMPORTANT POINT IN TESTING FOR ALBUMEN.—It is customary for the physician to request his patient to send him a sample of urine passed the first thing in the morning, when he desires to examine it for albumen. That this may mislead him, is suggested by a case which a correspondent reports in the *British Medical Journal.* The patient's urine manifested marked improvement almost immediately after treatment was commenced ; but one day by mistake, a specimen voided in the middle of the day was sent, and this was found to be loaded with albumen. Two samples were then directed to be sent on the same day every week, one being that passed the first thing in the morning, and the other later in the day. The result of this investigation was, that the former was perfectly normal and free from albumen, and the latter was decidedly albuminous. The amount of albumen varied, sometimes being considerable, sometimes hardly perceptible. At the present time the morning urine is perfectly free, but that passed at midday contains a decided trace ; and this state of things has existed for some weeks past.

BRONCHO-PNEUMONIA.—By this term is meant an inflammation which affects the mucous membrane and the walls of the bronchi, the air-cells and the interstitial tissue of the lung, but with the bronchial element preponderating. The lesions of the disease may be summarized as follows: (1) Inflammation of the mucous membrane of the bronchi of all sizes; (2) Infiltration of their walls with inflammatory products; (3) Acute dilatation of the small bronchi from these changes; (4) Zones of hepatization and congestion surrounding the bronchi; (5) Collapse of groups of air-cells from bronchial obstruction; (6) Extensive congestion of areas neither collapsed nor hepatized; (7) More or less diffused areas of hepatization; (8) Exudation of fibrine on the pleura; (9) Infiltration of the bronchial glands. It is likewise necessary to remember that the right ventricle of the heart is at birth as thick as the left, and throughout life it is relatively much more powerful than in adult life. Hence, it is better able to perform the increased work thrown upon it by the obstruction to the pulmonary circulation in pneumonia. Precisely the opposite is true with reference to the respiration. A healthy child produces, according to its body weight, about twice as much carbonic acid as an adult. The pneumonia renders a certain portion of the lungs practically useless for the time, while the febrile process increases the production of carbonic acid far beyond the quantity in health. Hence, although the child needs more breathing space, it actually has much less. According to Baginsky, while adults die in pneumonia mainly from heart failure, in children it is the failure of respiration. Of 53 cases it was presumably primary in 17, or about one-third. In ten it complicated whooping cough; in nine, measles; in nine it followed a primary bronchitis; in the remainder it was secondary to cholera infantum, scarlatina, vaccinia, or malaria, dentition co-existing in several instances. Both lungs were almost invariably involved, although generally to a different degree. While the temperature curve is an exceedingly variable one, it is not so uniformly high as in lobar pneumonia, and the diurnal variations are usually greater. The respirations are always accelerated, being more rapid and labored than in lobar pneumonia. They usually range from 60 to 80 per minute. The pulse reaches 150 to 180. In cases where the pneumonia is generalized, the whole chest may be extra-resonant. The emphysema which always exists about the patches of consolidation, modifies the percussion note behind. The sibilant râle is usually the first sign in the generalized or "suffocative" cases. These râles, when thus generalized, are replaced in a day or two by mucous clicks and moist râles of all sizes equally diffused. Of the fatal cases, the vast majority die during the acute stage. Those cases which at the end of six weeks or two months have shown little or no tendency to resolve, the physical signs remaining as they were during the height of the disease, have three terminations: (1) They may become tubercular; (2) They may terminate in chronic fibroid induration; (3) They may recover perfectly. A case of unresolved broncho-pneumonia is extremely unlikely to develop tuberculosis, if there has been beforehand no sufficient grounds for believing the patient to be tuberculous.—*Archives of Pediatrics.*

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OSMIC ACID IN PERIPHERAL NEURALGIAS.—Dr. Geo. W. Jacoby, of New York, reports in the *N. Y. Medical Journal* of August 1st, eighteen cases of peripheral neuralgias treated with local injections of osmic acid by the method suggested by Eulenberg in 1883. His statistics show eight cured, two improved and eight unaffected. Five of the eight cases cured were sciaticas. All the cured cases were old. Two of the unimproved cases were old, the remainder being recent cases. He concludes that the sciatic nerve is the most readily affected by the remedy, and that inveterate cases are more apt to be favorably affected by the remedy than recent cases. In using the acid, Dr. Jacoby used for each injection, 50 to 100 gramme for a one per cent. solution of osmic acid in water. The preparation was that known as osmium tetroxide (OSO) or, among histologists, as osmic acid. The substance termed hyperosmic acid by Neubauer and others, is probably the same. The solution, when exposed to light, rapidly becomes decomposed, turning dark and ultimately quite black, and is then, probably, inert. It should be dispensed in an opaque bottle, and in small quantities. The injections should be made as near as possible to the seat of pain, and into the connective tissue surrounding the affected nerve. The pain following the injection is often severe, but usually lasts but a few seconds. Occasionally swelling about the puncture persists for several days. Excepting a black spot at the entrance of the needle, no discoloration is caused by the injection. No constitutional symptoms follow.

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CASE OF POSTERIOR DICHOTOMY.—The Indian papers relate the following remarkable case of monstrosity, described, as might be expected, in popular language: "A lad, hailing from Lucknow, a Rajpoot Indian, aged 13 years, exhibiting himself in Sudder Bazaar, presents an extraordinary spectacle, having one head attached to two bodies. Each trunk is alive to the touch, and still more marvellous is it, that each set of limbs work together in unison, performing the same office at the same time. This is the same with the organs of each trunk. The lad gathers up the front limbs, and carries them along in moving about. His mental faculties seem intact, and he is cheerful in disposition." The variety of posterior dichotomy in this case would be "schizorhachis," the less complete form, where the posterior part of the axis is dichotomous, being "dipygus," and the more complete, where the dichotomy extends to the cranium, being "schizocotis." The condition of monstrosity is more extreme than in the Siamese twins, or in Millie-Christine, though there is no reason why a monster with two trunks should not live, provided there be no visceral malformation incompatible with life.—*British Medical Journal.*

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A NEW ELECTRIC PLANT.—Phytolacca electrica is the name given to a plant which possesses strongly marked electro-magnetic properties. In breaking a twig the hand receives a shock that resembles the sensation produced by an inducting coil. Experiments made on this plant showed that a small compass was affected by it at a distance of about twenty feet. On a near approach the needle vibrated, and finally began to revolve quite rapidly. The phenomenon was repeated in reverse order on receding from the plant. It is said that no birds or insects are ever seen on or about this plant The soil where it grew contained no magnetic metal like iron, cobalt, or nickel, and it is evident the plant itself possesses this electrical property.

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AN EXCELLENT REMEDY FOR CHILBLAINS—A correspondent of the *Druggists' Circular*, speaking from practical experience, recommends the following as one of the best recipes for chilblains:

℞ Acetas plumbi ..... ℥ss.
Aqua fontan ..... oj.

M. S.—Bathe the part affected three times a day, then wrap it up with a soft piece of linen or cotton, saturated with the lead solution.

PNEUMONIA IN YOUNG CHILDREN. (*New York Medical Record.*)—Among 75 cases under five years, 18 were lobar and 56 cases were broncho-pneumonia, or about one to three. Lobar pneumonia is usually primary and occurs more frequently in stout, robust children; in males a little oftener than in females. A distinct prodromal stage is rarely present. The disease begins suddenly; it is ushered in most frequently with repeated attacks of vomiting. This was the mode of onset in about half of the cases, and next to this, convulsions seemed to be the most common. A distinct chill is rare under six or seven years. High fever sets in almost at once. The temperature fluctuates slightly during the day, being 102° to 103° in the morning, and 104° to 105° in the evening, until the sixth or seventh day, sometimes not until the tenth, when it suddenly falls and the crisis often comes with a copious diaphoresis. The cerebral symptoms are frequently so prominent as to mask completely the rational signs of the pneumonia. The initial convulsions may be succeeded by an active delirium, generally hyperæsthesia, vomiting and constipation, or by drowsiness verging on a true stupor with slight opisthotonus and retraction of the abdomen. Gastro-intestinal symptoms at the onset may be so severe as to engross the whole attention of the physician. Regarding the seat of the disease, the order of frequency is, first, the right apex; second, the left apex; third, the left base; fourth, the right base. Generally speaking, the physical signs do not differ essentially from those in the adult, but the frequency with which the apex is involved should be borne in mind, and the region high in the axilla carefully examined, as it is here, perhaps, that the disease is most often overlooked.

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A CASE OF ANTHRAX OR CHARBON, WITH EXTERNAL SYMPTOMS (MALIGNANT PUSTULE); EXCISION; RECOVERY.—J. L., aged 42 years, was admitted to St. Bartholomew's Hospital, suffering with charbon or woolsorters' disease. Twelve days before admission he had handled two heavy bales of hides from China. On the next day he noticed a small hard swelling below and behind the right ear, near the site of an old parotid abscess. The swelling rapidly increased, and was followed by pain during mastication and swallowing, and later by discomfort so great as to prevent his sleeping.

On admission, there was on the right side of the neck, two inches below and behind the ear, a large flat pustule, about the size of a florin, with a dark centre, apparently formed by a superficial slough, its circumference being formed by a bleb with an irregular circular outline, looking as if several blebs or vesicles had become confluent. Immediately above and behind this sore was a separate bleb about the size of a large split pea. Below the ear was a mass of inflamed lymphatic glands. All the surrounding tissues were œdematous and brawny, so that the fossa below the ear was filled up and the parts projected. The skin surrounding the pustule was very œdematous and erythematous. The erythema extended from the posterior border of the sterno-mastoid muscle behind to the anterior border of the masseter muscle in front; above, it reached the level of the temporo-maxillary articulation; below it extended as far down as the third rib on the right side. The patient felt very sick; his temperature was 101°.4; he experienced much difficulty in swallowing and was in great pain. The spleen could not be felt.

The patient was chloroformed, and a free incision made around the pustule, at a distance of a quarter of an inch from its margin, and removed entire to the depth of half an inch. The tissues at the base were found so infiltrated and adherent, that it was necessary for removal to dissect off some of the fibres of the sterno-mastoid muscle. An incision was also made into the mass of inflamed glands. Pure carbolic acid was applied to both wounds, and they were covered with sanitas oil (1 in 30) dressings. There was considerable oozing of blood during the operation, and Paquelin's cautery (benzine) was afterwards used to check it. Six hours after the operation the temperature had fallen to 99°; the pulse was 100, and regular. The patient made a complete recovery.

Three other men who had handled the same hides as J. L., were attacked with "charbon." A microscopic examination of the excised pustule was made, but no bacilli were found in it. Cases of "charbon" appear to be more frequently admitted to Guy's Hospital than to the other hospitals, from its neighborhood to the large leather manufactories of Bermondsey, and the records show that the treatment by incision is very successful. Sulphite of soda was given internally, on account of its successful use in splenic fever in cattle.—*Jour. of Cut. and Ven. Dis.*, (*from Brit. Med. Jour.*)

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AN easy method of bed-side urine testing has been suggested and worked out by George Oliver, M.D. (*The Chemist and Druggist.*) He used various test papers, which are made by saturating pure filtering paper with the test solutions, such as potassio-mercuric iodide, sodium tungstate, potassium ferrocyanide and picric acid for albumen, and indigo carmine for sugar. These papers are used as easily as litmus paper is employed, and they possess other advantages than portability merely—such, for instance, that, while some of the solutions need to be newly prepared whenever they are used, the papers seem to keep indefinitely. Dr. Oliver has given a summary of his experience with these paper tests, with a great many hints derived from constant practice, and adding explanations of ingenious methods he has devised for ascertaining by their means, the quantities of albumen or sugar present in the urine tested. For quantitatively testing the albumen in urine he employs a piece of glass of standard opacity, which compares with a tube of a certain diameter in which albuminous urine has been precipitated by a potassio-mercuric iodide paper. The opacity is tested by reading a card through the glass and the tube, and when it corresponds exactly the proportion of albumen present is one per cent. If a greater proportion is present, the fluid is diluted till correspondence is attained. Dr. Oliver is confident that by this method any one could distinguish between .1 and .12 per cent Sugar he detects by means of indigo carmine paper, the use of which he has himself proposed, and the rapidity with which the color is discharged is the test of the quantity of sugar present in the urine.

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TREATMENT OF INCARCERATED HERNIA BY ETHER-IRRIGATION.—In the *Russkaia Meditz*, No. 3, 1885, p. 62, Dr. D. V. Bartosz, of Romny, Poltava Government, writes that during the last two years he used ether-irrigation with brilliant success, in all his cases of strangulated hernia, seventeen in number. Irrigation was performed after Finkelstein's method, that is, a tablespoonful of ether was poured over the tumor every half hour. The hernia disappeared spontaneously, or under slight pressure in the worst cases, within four or five hours. The duration of strangulation varied between a few hours and five days. The author describes, also, a case of internal intestinal obstruction in a woman, aged sixty, with nine days' constipation, incessant fœcal vomiting, tympanites, thready pulse, etc., in which, after all the usual means had failed, ether-irrigation all over the abdomen brought about profuse stools in an hour and a half, the patient completely recovering.

ON SOME CONDITIONS WHICH PRECEDE KELOID.—Dr. J. Hutchinson (*Medical Times*), concludes his paper with the following summary:

(1) That with keloid, as with other skin diseases, we must not expect too close a conformity to the type form.

(2) That for clinical convenience we may recognize several varieties of keloid, the prognosis as to spontaneous disappearance and proneness to return after excision differing much in each.

(3) That the first and most typical form is that in which keloid begins in a very small, perhaps forgotten scars, and slowly spreads far beyond their limit into sound skin. In most cases the extension and duration are indefinite; and the hardness, glossiness, abruptness of outline, etc., are always well marked. The proneness to recur very quickly after excision is very great in these.

(4) That in the second group, in which keloid growth begins in the middle of large scars, such as those of burns, it is seldom so well characterized. It often does not extend beyond the scar, and often, especially in young persons, soon begins to soften again and to gradually disappear.

(5) That in a third form the keloid growth is deeper, and never produces the glossy, superficial, elevated and spurred patches which occur in the others. These cases are very slow and show but little tendency to spontaneous disappearance. They do not develop in connection with large scars, but rather with inflammatory damage to the skin. They are less prone than the others to recur after excision.

(6) That although definite scars almost invariably precede the formation of keloid, yet that there are allied conditions which result rather from inflammation after injury than from anything which is demonstrable as cicatrix.

(7) That the cases of multiple keloid prove either that there is in some persons a remarkable tendency to the disease, or that primary patches have the power of infecting the blood and producing others.

(8) That there is little or no clinical proof of tendency on the part of keloid to pass into cancer.—*Journal of Cutaneous and Venereal Dis.*

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SUB-NITRATE OF BISMUTH AS A SURGICAL DRESSING.—In an article written last year by Toledano, on the treatment of ulcers, the use of the sub-nitrate of bismuth is strongly recommended as a dressing, especially in the case of chronic varicose ulcer. The author notes a number of cases treated by Balme, which were cured in the short space of four weeks' time, the dressing being changed once every three days. Following this recommendation, the treatment was adopted in the policlinic at Wurzburg, with most excellent results. The action of the drug is reported to be, besides antiseptic and chemical, also mechanical, for, when applied, it forms a dry scab over the ulcer, which effectually protects it from injury. It was applied in Wurzburg as follows: The ulcer was thoroughly cleansed and the powder scattered thickly over the sore and bound down by means of a linen bandage. Three cures are reported from this clinic, and they are certainly most striking, on account of the rapidity with which the ulcers healed after the application. Pure bismuth, according to Riedel and Kocher (*Schmidt's Jahrbuch.*, Vol. 109, No. 8; *Langenbeck's Archiv*, Vol. 29, Part 31) is capable, in a high degree, of preventing putrefaction. Its action is accounted for in the following manner: Bismuth, when exposed, constantly forms and gives off nitric acid, in quantities sufficiently large to prevent the appearance of micrococci. Riedel warns against using bismuth in abdominal operations, although he states that Kocher used it without ill effect in extirpation of the uterus, and in small quantities in an extirpation of the uterus, and both cystic degenerated ovaries. He claims that, in simple wounds, such as result after plastic operations, an application of the drug is followed by the formation of a crust over the surface, very little discharge of secretion ensues, and the wound is soon covered with healthy granulations. In cases of fresh wounds that were united by sutures, healing by first intention was not retarded, but, on the contrary, promoted by the use of bismuth; and, providing only fifteen tosixty grains of a ten per cent. solution were used, in large operations, nothing like stomatitis or nephritis resulted. I have treated fully twenty of the most obstinate varieties of old varicose ulcers within the last three months, and have succeeded in curing them all in a very short time, after daily applying the subnitrate of bismuth. The preparation has also been employed in my own hospital service, and in that of Dr. Douglass, as a surgical dressing for all manner of recent wounds. In one case in particular the use of the drug proved to be most beneficial. It was an amputation of the leg of an old man nearly 70 years of age. The operation was made with all antiseptic precautions, except the spray, yet death of the edge of the anterior flaps occurred, and a large portion of them sloughed off, leaving the flaps gaping for a considerable extent. Various remedies were applied to hasten healing, but they were either of no avail, or of only temporary benefit. As a last resort, the space between the flaps was filled out with the subnitrate of bismuth, and although it has only been applied daily for a week the whole appearance of the stump has become transformed. It is covered with stout, firm granulations, and the size of the wound is diminished at least one-third. In closing, I would like to call attention to the fact that the subnitrate of bismuth produces a peculiar change in the appearance of granulations filling a wound. If they are pale and flabby, they at first become black, and then firm, and assume a purplish hue, and if they are bright red they change to the same purple color. The secretions which escape from a wound, providing the wound is a fresh one, are also changed to a jet black hue during a short interval.—J. F. MORSE, *San Francisco West. Lancet*, Feb., 1884.

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SELTZER WATER INJECTIONS IN INTUSSUSCEPTION.—Since the injections both of water and of gas have been successfully used in the treatment of cases of intussusception, Dr. E. E. Beach, *New Orleans Medical and Surgical Journal*, September, 1883, employed them together in the treatment of two such cases by injections of seltzer water into the bowels. His method was to attach the rubber pipe of a Davidson's syringe, after having removed the metal part of the suction end to the nozzle of the seltzer bottle or siphon. The pipe was then introduced into the rectum, and the valve of the seltzer bottle opened, taking care not to suddenly distend the bowels. After letting water pass in, he allowed time for the gas to be evolved from the fluid injected. In one case, that of a boy eight years of age, in whom all the symptoms of intussusception were present, injections were made until the child vomited. As the tube was withdrawn from the rectum quite a burst of gas escaped with the water, and the patient then rested quietly and easily, and the lump, which had previously been detected in the abdomen, had disappeared. Laudanum was then given in sufficient quantity to insure quiet, and the abdomen was covered with a poultice of flaxseed. The patient did well for the next three days, when he had a natural evacuation from the bowels. He also reports the case of an infant, six weeks old, in whom he diagnosed intussusception of the bowels, and in whom the symptoms were relieved by similar procedure.

CREASOTE WATER IN BURNS.—Creasote water is a simple 1 pr. ct. solution of wood creasote in water, and like similar solutions of carbolic acid and of creasol, it is a most effective local anæsthetic and topical dressing to burns and scalds. This creasote water—diluted with an equal volume of water, or with more water for delicate surfaces in women and children, and applied by means of a single thickness of thin muslin, or worn out cotton or linen, such as handkerchief stuff, and the application renewed from time to time, as the return of pain requires it—will relieve the pain of burns and scalds in five or ten minutes, and will maintain the relief as long as the applications are properly renewed, or until the painful stage is over.

It is also very effective as a local anæsthetic for general use in all painful conditions which affect the surface only, such as the pain of erysipelas. The benumbing effect of these phenols upon the skin is very promptly reached, and can be carried to almost any degree that is desirable, by simple management of the strength of the solutions and the mode of application. They are true anæsthetics to the skin, while the much lauded cocaine is not.

The statement has been published so often during the past twenty years, and the treatment has been so effective in so many hands, that it is wonderful to notice how the common practice is still to use the old and comparatively useless hot dressings, such as carron oil, white lead ground in oil, etc., or the newer application of solution of bicarbonate of sodium.—*Squibb's Ephemeris.*

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THE INTERNATIONAL CONGRESS OF 1886.—It is proposed to hold an International Homœopathic Congress in 1886, at Bruxelles. The Provisional Committee says:

"We earnestly beseech the members of our school to so work that the Congress shall be indeed profitable to the great cause of homœopathy; the moment is favorable; the medical, physiological and biological sciences have been especially occupied for some time with infinities; the experiences of pathology, to-day, are founded upon the microscopic study of the infinitesimal substances; homœopathy should raise its voice, it seems to us, since she has since Hahnemann directly entered into this domain; the cure and prophylaxis of virulent and infectious maladies, the inoculation of the attenuated virus, modified by culture, the recent studies upon the action of mineral waters, the metalloscopy and metallotherapie, all show that the servants and students approach, more and more, the great principles of our doctrine; it seems to us, therefore, that the moment of triumph is not far distant, the wind already fills the sails; let us then increase our courage, and unite all our offerings, so that the grand international convention of 1886 may be profitable and fruitful in happy results."

"Numerous and recent works have been published upon our materia medica, which competent minds are striving to complete and revise; the Congress can profitably consider this interesting question."

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ABORTIVE TREATMENT OF TYPHOID FEVER BY NAPHTHALIN.—L. Götze, in *Zeitschr. für Klin. Med.*, 1885, No. 1, reports the use of naphthalin in a local epidemic of typhoid fever. Thirty-five cases in all were treated with the following results. With the exception of three cases treated with the drug, enlargement of the spleen was not noticed. The remedy was administered in doses of 15 grains, and 75, 90, and even 105 grains daily were received by the patients. Other remedies were substantially not administered. The naphthalin employed was that directed by Rossbach, the purest resublimated with the oil of bergamot. During the course of the disease all the patients received over 1,050 grains, and many of them 2,100 grains. Untoward effects (with one exception, in which naphthalin intoxication was exhibited chiefly in the form of brain depression, which was readily relieved by soda sulphurata) were not observed. The course of the disease, on the whole, was exceptionally favorable, and the intestinal symptoms—diarrhœa, pain in the coecal region—were favorably influenced. In three cases the disease appeared to be generally shortened by the drug. In other cases through its use became abortive in from six to ten days; in some others the fever did not continue more than sixteen days. In a final series of cases the process of the disease was not shortened, but the period during which marked elevation of temperature was maintained, was curtailed. Three cases died from serious complications. In cases in which antipyrin in apyretic doses failed to reduce the temperature, naphthalin produced such effect, as was proven by several trials always with the same results.

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SIMPLE METHOD OF EXAMINING YEAST.—A small piece of the compressed yeast is placed in a wine glass which is filled with water at 25°. If the yeast is active it will rise to the surface in from one and a half to two minutes. If less good it will require five minutes before it rises. Bad yeast will not rise at all.

## *MISCELLANY.*

—Cornell University contemplates organizing a medical department.

—The cost of the epidemic of small-pox at Montreal is likely to reach $5,000,000.

—The German Imperial Government has ordered the establishment of chairs for hygiene and bacteriology at all universities of the Empire.

—The Dutchess County Medical Society is greatly exercised over several alleged violations of the Code of Ethics by means of advertising. Appearances indicate a lively time.

—Dr. Strong, Chief of Staff, Ward's Island Hospital, reports 601 patients treated during the month of December. Mortality, 2.66 per cent. 3,756 patients were treated during the year 1885.

—The electric light has been used in this city to light up diseased bone which had been drilled by an ingenious instrument called the electro-osteotome. The operation is said to have been successful.

—Major William Vaughan Morgan, chairman of the London Homœopathic Hospital, has offered a prize of 25 guineas for the best essay on "Medical Treatment, with special reference to the scientific system of Hahnemann."

—A son of Meissonier, the celebrated painter, was terribly bitten, Dec. 13, 1885, by a rabid mastiff in his father's garden. The victim was immediately sent to Pasteur for treatment. The latter declares that the patient's recovery is certain.

—In the *Lancet*, Oct. 10, 1885, Dr. Thomas Barr reports a case of scarlet fever, complicated with nasal and pharyngeal diphtheria; acute suppuration of both middle ears; rapid destruction of tympanic membranes; serious loss of hearing; facial paralysis and abscess of lachrymal sac; recovery.

—Diphtheria is constantly increasing in England. In 1880 the number of deaths registered as due to this disease amounted to 2,612; in 1881, they were 2,976; 1882 exhibited a further increase of 3,756; in 1883 they reached 3,976; and during 1884, the last completed year, they were no less than 4,696.

—According to a writer in the *Chemical News*, the painful burn produced by nitric acid may be successfully treated by a dilute solution of sulphuric acid applied instantaneously.

—Prof. Bartholow says that itching of the skin, from any cause, can be allayed by sponging the patient with:

℞. Acid. Carbol..... ℥ ij.
Glycerini..... ℥ j.
Aquæ Rosæ ..... ℥ viij.
M. Sig.—Lotio.

—M. Duclaux has studied the influence of sunlight on the vitality of micrococci. A few hours' exposure to the sunlight weakened the pathogenic micrococci and finally killed them. The inference is that sunlight is an universal hygienic agent, one that is most active and powerful, common to both private and public sanitation.

—A medical man in England recently objected to taking the judicial oath in the ordinary form, to wit, by kissing the Testament, on the score of uncleanliness and risk of infection. The judge refused to entertain this as a "conscientious objection" within the meaning of the act. The witness at length complied under protest.

—According to M. Lagneau, the well-known statistician, there is a lower rate of mortality among bachelors under twenty-two years of age than among married men. Above that age the contrary is observed and married men live longer than bachelors. Among bachelors 38 per 1,000 are criminals; among married men, 18 per 1,000.

—Dr. T. Spencer Cobbold, publishes in the *Lancet* of Sept. 26, 1885, reports of additional cases of tape worm, bringing his series up to two hundred cases. His additional experience fully confirms all that he previously urged in favor of male fern remedies as compared with kousso, turpentine, pomegranate root, bark, and other drugs.

—Salicylate of cocaine has been tried as a hypodermic injection in an obstinate case of trigeminal neuralgia, by Max Schneider. It acted marvelously well; 0.4 gramme was injected under the skin of the cheek. This was repeated several times, and almost entirely relieved the pain and the distressing insomnia. Galvanism completed the cure.

—The spinning wheel has been prescribed as a cure for insanity. It was introduced into the asylum at Douglas, Isle of Man, as something that might amuse the patients, and they forthwith became so interested in it, and in the idea of contributing to their own support by its use, that the direction of their nervous force was changed, and their condition greatly improved. Experiments are to be tried in other asylums.

—We perceive by the announcement of the Annual Meeting of the New York State Homœopathic Medical Society, to be held in Albany early in February, that President Terry and his committees have made ample provisions for an unusually interesting and profitable meeting. A large number of papers have been promised from able writers, and some of the living issues of the day will be discussed with intelligence and ability.

—We are sorry to learn that Dr. Donaldson, who in his short residence in this city has won, by excellent work here and elsewhere, a high rank as a gynecologist, is obliged, on account of ill health, to give up professional work for several months. After making an extended trip through Old and New Mexico and Southern California, he proposes spending three months with Lawson Tait. After an absence of eight months or a year he hopes to return with renewed health and strength.

—Dr. Piffard has retired from his editorial connection with the *Journal of Cutaneous and Venereal Diseases*, which will hereafter be under the editorial supervision of Dr. P. A. Morrow. This is the only journal in the English language devoted exclusively to this specialty. During the three years of its publication it has won a deservedly high place in the ranks of journalism, and the first number issued under the new management is of a high order of excellence.

—Dr. Prior, of Bonn, has treated several cases of whooping-cough with cocaine, with good results as a palliative. He used 15 and 20 per cent. solutions to paint the fauces, the inter-arytenoid fossa, and the vocal cords, with the result of prolonging the interval between the attacks, and lessening the severity of these. The treatment was resorted to twice daily, great stress being laid on the necessity of producing at the time complete anæsthesia of the fauces and upper part of the larynx. Inhalation of a 20 per cent. solution four times a day was not so successful as painting.

—The *Lancet* says that "the presence of a heat centre in the brain has apparently been demonstrated by the observations and experiments of Ott, Richet, Aronsohn, and Sachs, though its precise position is still open to question. Exner's observations on the localization of the visual sense support those of Christiani, and are in opposition to those of Munk, Dalton, Ferrier, Luciani, and others, for he has found that every part of the cortex of the occipital lobe may be removed without the smallest impairment of the sense of sight."

—Dr. Fleischl has devised a new hæmometer, or instrument for determining the globular richness of the blood, founded on the colorimetric method, the novelty of which consists in using as test slips of colored glass instead of a mixture of blood and water. The numerous experiments of Otto show that the average number of corpuscles in healthy men is 4.998 millions of corpuscles in one cubic millimetre, containing 14.57 grammes of hæmoglobin in 100 centimetres of blood, while in women the corresponding numbers are 4.585 millions and 13.27 grammes.

—A bill has been introduced in the Legislature, providing, that after the first of next January it shall be unlawful to sell any sulphate or preparation of morphine or opium (except paregoric and preparations containing two grains or less of opium to the ounce) except from bottles or packages with scarlet labels. This measure may not meet the evil in question in an entirely satisfactory manner. But it certainly is an effort in the right direction, and when it gets in Committee of the Whole, amendments calculated to improve it will be in order. In the meantime any person who thinks that a bill with different provisions might be better, would render the public a service by putting his suggestions in writing and sending them to the committee on Public Health of the Senate, to which this bill has been referred.

—The annual report of the Manhattan Eye and Ear Hospital shows that during the last year 8,337 patients have been treated in its out-door department (the total number of visits made by patients being 48,142), and that 1,364 operations have been performed. In the indoor department 8,548 days' board was furnished to 360 patients, each of whom remained in the hospital an average of about twenty-three days. The work of the institution is constantly growing, and in the last year the necessary expenses have been such as to create a debt of $7,000. The hospital has no State or city aid, and depends entirely for support upon voluntary contributions. It is solely for the benefit of the sick poor, no patients being received who are able to pay for medical treatment.

—The addition of bicarbonate of soda to tea-leaf, in the proportion of ten grains of the former to an ounce of the latter, has been found to remove almost entirely the injurious effect of tea on starch digestion.

—Dr. Dujardin Beaumetz has read before the French Hygienic Society a paper on what he regards as a well-established case of "spontaneous hydrophobia" in a man aged twenty-nine. Not only did all the symptoms which characterize that malady declare themselves, but the matter taken from the patient's body when he died communicated it to rabbits inoculated therewith. The patient declared on entering the Hotel Dieu, Paris, that he had not been bitten or scratched by a dog or any other animal, nor been in any sort of contact with one. The body was minutely examined before and after death, and the skin was everywhere intact.

—It is said, doubtless with truth, that there are several hospitals in New York that might be overhauled with credit to the charity that they are supposed to dispense. It is also said that there is a hospital whose annual expenses are nearly $50,000, whose wards to-day have only twelve or fourteen patients. That is a thousand dollars a week spent on fourteen patients. There was a big effort made recently to secure the endowment of a policeman's bed in a certain hospital, and $12,000 was raised for the fund. There has only been one policeman cared for since the fund was raised. In the same hospital a working girl's bed was endowed some time ago with $15,000 raised in the same way. It is stated that it has never been used at all. There are several directions in which the present hospital accommodations are faulty. The children are neglected in the provisions made in the hospitals now in existence. Cases are often reported where children are refused admittance to hospitals because they have no accommodations for them. There is no doubt but more attention should be given to the subject of the care of sick children, and we hope its consideration will soon be reached by some charitably-disposed individual. This charity and that of the care of the helpless blind are the two objects most at present needing attention.

—Dr. Smith, Health Officer of this Port, says: "There is a great deal of misinformation spread before the public in the matter of disinfecting rags As a fact seven-eighths of all the rags brought to this port are fumigated abroad according to the directions of the Treasury Department. I have always admitted them, although it has been with somewhat of a mental protest, because I do not believe that the work is always thoroughly done abroad. In one month, September, the proportion of rags brought here that had been fumigated was eleven-twelfths of the whole arrival. The rags requiring fumigation have been excluded only where the owners have refused to come up to the requirements of the Treasury Department. The old boiling process is still recognized as sufficient if persons desire to pursue it. The attempt to take a cargo of rags into Philadelphia, which I had refused admittance here, has resulted in the rags being stored in that city. The people of Philadelphia are peculiarly sensitive about disinfected rags, by reason of their experience in the Hamilton Paper Mills. In 1884 five persons employed in the beating room there were taken down with small pox. In April of last year six employes in the mills were attacked. One of them went home to Spring Hills and carried the contagion with him. It broke out in the community and was only stamped out by the action of the State Board of Health, which came in and required every person in the place to be vaccinated."

—Demilt Dispensary of this City reports 42,471 persons treated in 1885, of whom 4,330 received treatment at their homes. Besides the regular dispensary physicians twenty other practitioners of the city gave their services gratuitously in attending patients at the dispensary. Two evenings in the week are devoted to the treatment of women who are unable to attend the dispensary during the day, by physicians of their own sex. A valuable microscope, a large battery for electrical treatment and other needed appliances have been added to the dispensary's equipment during the year.

—Power is utilized and simplified when a single battery will light the house, furnish power for the elevator and laundry, for galvanic, faradic and cautery purposes to the physician and a lamp for his physical explorations, always ready and with ordinary care never out of order. The Gibson Storage Battery is so far perfected that its owners claim that it can furnish all the mechanical power needed in a house, as well as to run the cautery, the faradic, the galvanic current for the physician's office and give him an incandescent light for his examinations. The battery consists of one or more cups with specially prepared plates which furnish a steady current of definite tension at all times, for any purpose desired. The battery is charged by an ordinary gravity, or flue vitriol battery in a few moments.

—*The Century Magazine* for January contains a subject of scientific interest, treated in a thoroughly popular style—the paper on "Feathered Forms of Other Days," by Dr. R. W. Shufeldt, U. S. A. Among the illustrations are a remarkable engraving of the fossil remains of a feathered reptile, or reptile-like bird with teeth, and several restorations of extinct forms from drawings by Dr. Shufeldt.

In his concluding paper on "The Lesson of Greek Art," Dr. Charles Waldstein—the young American who is Lecturer on Greek Archæology at the English University of Cambridge—treats of the education of the American artist, and advocates general literary and scientific culture, as well as technical art study. And in an article on "A French Painter and his Pupils" a glimpse is given of the company of American and foreign artists who receive instruction from Carolus Duran, the master's ideas of art as imparted in studio talks being the larger part of the article. A full-page engraving from the portrait by Duran, of a young American Girl, accompanies this article. "A Broad View of Art" is the subject of the leading editorial in "Topics of the Time."

—The amount appropriated for the Health Department last year was $469,758. For this year the amount applied for was $487,516, but only $319,800 were allowed by the Board of Estimate and Apportionment. In order to bring the expenses of the Department within this sum, reductions in the force will be made effecting a saving of $41,170, and a further reduction of $13,330 will be made by cutting down the salaries of the Department employes 12½ per cent. In order to go through the year without getting into debt it will be necessary to cut down the hospital supplies by about $75,000, to do away with the services of the summer corps of assistant sanitary inspectors who have done such excellent work among the tenements during the last five years, to stop the improvements on North Brothers Island, and to curtail the use of disinfectants. The men to be discharged include, it is said, a number of first-class inspectors, whose services in reporting defective drainage and other dangers to the public health are of the greatest value. Last year the Health Board applied for and received a special appropriation for the purpose of fighting cholera in case it made its appearance here. The money was not needed and was returned to the city. If cholera or any other epidemic should break out this year, special appropriations will have to be made.